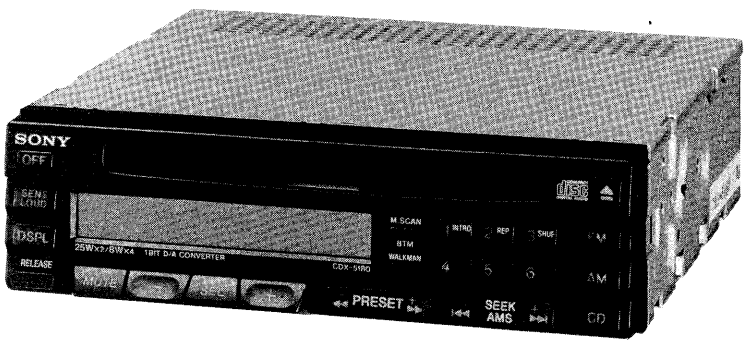
CDX-5180

SERVICE MANUAL

US Model
Canadian Model
E Model



Model Name Using Similar Mechanism	CDX-U8000
CD Drive Mechanism Type	MG-200W-33

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION 10 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 40 – 15,000 Hz with no more than 1% total harmonic distortion.

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	25 W × 2 (at 4 ohms)* 8 W × 4 (at 4 ohms)* * Measured at 14.4 V

CD player section

System	Compact disc digital audio system
Frequency response	10 – 20,000 Hz ±3 dB
Signal-to-noise ratio	90 dB
Wow and flutter	Below measurable limit
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission duration	Continuous
Laser out-put power	Less than 44.6 μW*

* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

General

Input	WALKMAN jack
Power requirements	12 DC car battery (negative ground)
Current drain	800 mA (CD playback) 2 A (during disc loading or eject)
Operating temperature	– 10°C to 50°C (15°F to 120°F)
Dimensions	Approx. 178 × 50 × 152 mm (w/h/d) (7 1/8 × 2 × 6 in.)
Weight	Approx. 1.6 kg (3 lb 8 oz.)
Tone controls	Bass ±10 dB (100 Hz) Treble ±10 dB (10 kHz)
Supplied accessories	Mounting hardware (1 set) Front panel case (1) Connecting cord (1set)
Optional accessories	Mounting kit Cleaning cloth XP-CD1

— Continued on next page —

使用時は添付資料も参照のこと
Refer to the additional documents

FM/AM COMPACT DISC PLAYER

SONY®

Tuner section

	FM	AM
Tuning range	87.9 – 107.9 MHz	530 – 1,710 kHz
Antenna terminal	FM/AM external antenna connector	
Intermediate frequency	10.7 MHz	450 kHz
Usable sensitivity	12 dBf (1.1 μV/75 ohms)	35 μV
Selectivity	75 dB at ±400 kHz	–
Signal-to-noise ratio	70 dB (monaural) 65 dB (stereo)	55 dB
Harmonic distortion at 1 kHz	0.3% (monaural) 0.5% (stereo)	0.3%
Stereo separation	35 dB	–
Frequency response	30 Hz – 15, 000 Hz ±3 dB	–

Design and specifications subject to change without notice.

TABLE OF CONTENTS

Section	Title	Page
	Specifications	1
1.	**GENERAL**	
	Features	3
	Installation	3
	Connections	4
	Location of Controls	5
	Detaching and Attaching the Front Panel	6
	Adjusting the sound	6
	Playing a Disc	7
	Enjoying the Variety of CD Playing Modes	8
	Memorizing the Stations Automatically	8
	Memorizing Only Desired Stations Manually	9
	Receiving Stations Stored in the Memory	10
	Tuning in Automatically	10
	Tuning in Manually	11
	Listening to a WALKMAN	12
	Setting the Clock	12
2.	**DISASSEMBLY**	13
3.	**MECHANICAL ADJUSTMENTS**	14
4.	**ELECTRICAL ADJUSTMENTS**	14
5.	**DIAGRAMS**	
5-1.	Master Microcomputer IC504	18
5-2.	Master Microcomputer IC601	24
5-3.	Tuner Microcomputer IC603	27
5-4.	Key Display Microcomputer IC802	28
5-5.	Block Diagram	33
5-6.	Printed Wiring Boards (MD Section)	36
5-7.	Schematic Diagram (MD Section)	39
5-8.	Printed Wiring Boards (Main Section)	43
5-9.	Schematic Diagram (Main Section)	47
5-10.	Printed Wiring Boards and Schematic Diagram (Display Section)	51
6.	**EXPLODED VIEWS**	55
7.	**ELECTRICAL PARTS LIST**	60

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

This section is extracted from instruction manual.

SECTION 1
GENERAL

Features

DIN-sized mobile CD player and FM/AM tuner with a power amplifier

CD section
- 1 bit DAC (Digital-to-Analog Converter) for a clear sound reproduction.
- Quick-recovery mechanism against sound skipping.
  When strong vibration causes sound skipping, the player quickly relocate the point where the CD play was interrupted.
- A 3-inch (8 cm) CD can be played without an adaptor.

Tuner section
- Best tuning memory function stores a total of 24 stations (18 FM and 6 AM stations) in the memory.
- Easy and quick tuning with preset number buttons while driving

Others
- Fader control for adjusting the volume of the front and rear speakers in a 4-speaker system
- WALKMAN jack for easily connecting a WALKMAN, etc.
- Line outputs for connecting an optional power amplifier.
- Two colour variation (amber or green) for illumination.
- Detachable front panel enables you to take the front panel away with you leave your car.
- Quartz-controlled digital clock
- Built-in 4-channel power amplifier

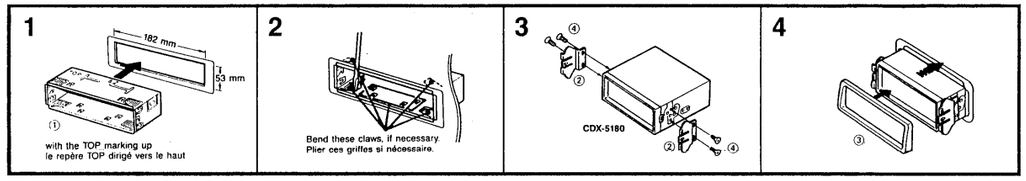
Installation

Precautions
- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Be sure to detach the front panel before you start installing the unit.
- Use only the supplied mounting hardware for a safe and secure installation.
- Press the reset button on the front side of the unit hidden by the front panel after completing the connections.

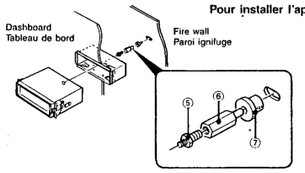
Mounting angle adjustment
Adjust the mounting angle to less than 20°.

Mounting Example

Installation in the dashboard



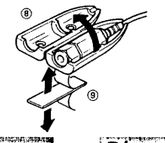
To support the unit



To Install the WALKMAN Jack

The WALKMAN jack can be installed on the dashboard etc. with the supplied double-sided tape.

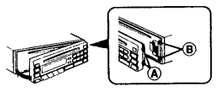
Notes
- Do not install the WALKMAN jack on the driver side dashboard.
- Place the WALKMAN cord where it would not interfere with normal driving functions of the car.



How to Detach and Attach the Front Panel

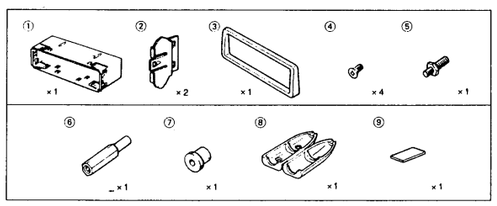
To detach
Press the RELEASE button to open up the front panel, then pull it out.

To attach
Align the part Ⓐ and Ⓑ, and push the front panel until it is fixed.



Supplied Mounting Hardware

The numbers in the list are keyed to those in the instructions.



Installation

Précautions
- Choisir soigneusement l'emplacement de sorte que l'appareil ne gêne pas la conduite.
- Eviter d'installer l'appareil dans un endroit exposé à de hautes températures, telles que celles du rayonnement solaire ou de l'air chaud du chauffage, à la saleté, à la poussière excessive ou à de violentes vibrations.
- Ne pas oublier de détacher le panneau avant, avant de commencer d'installer l'appareil.
- Pour une installation sûre, n'utiliser que le matériel de montage fourni.
- Appuyer sur la touche de réinitialisation de l'appareil, caché par le panneau avant après avoir effectué les connexions.

Ajustement de l'angle de montage
Ajuster l'angle de montage à moins de 20°.

Exemple de montage

Installation sur le tableau de bord

Pour installer l'appareil

Installation d'une prise de WALKMAN

Une prise WALKMAN peut être fixée sur le tableau de bord, par exemple, à l'aide de ruban à double face adhésive.

Remarques
- Ne pas installer la prise WALKMAN sur le côté conducteur du tableau de bord.
- Le cordon WALKMAN ne doit pas gêner la conduite.

Dépose et fixation du panneau avant

Dépose
Appuyer sur la touche RELEASE pour ouvrir le panneau, puis le tirer.

Fixation
Aligner les parties Ⓐ et Ⓑ, puis pousser le panneau avant de sorte qu'il soit bien en place.

Matériel de montage fourni

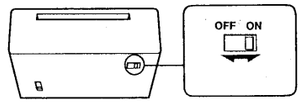
Les numéros de la liste sont en accord avec ceux du mode d'emploi.

Connections

Caution
- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal which is energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

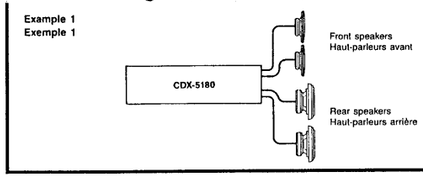
Power Select Switch

When the unit is used in a car with no accessory position on the ignition key.
The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear if the unit is used in a car with no accessory position on the ignition key.
To avoid this battery wear when using the unit in such a car, **set the POWER SELECT switch located on the bottom of the unit to the OFF position, then press the reset button.** The illumination is reset to stay off while the unit is not being played.

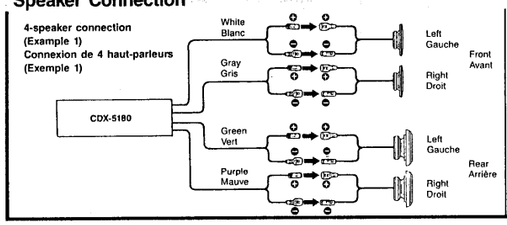


Use a ball-point pen or a similar object to select the position of the switch.
Choisir la position du sélecteur à l'aide d'un stylo ou d'un objet similaire.

Connection Diagram



Speaker Connection

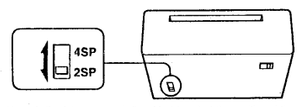


Notes on speaker connection
- Use speakers with impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

Speaker Select Switch

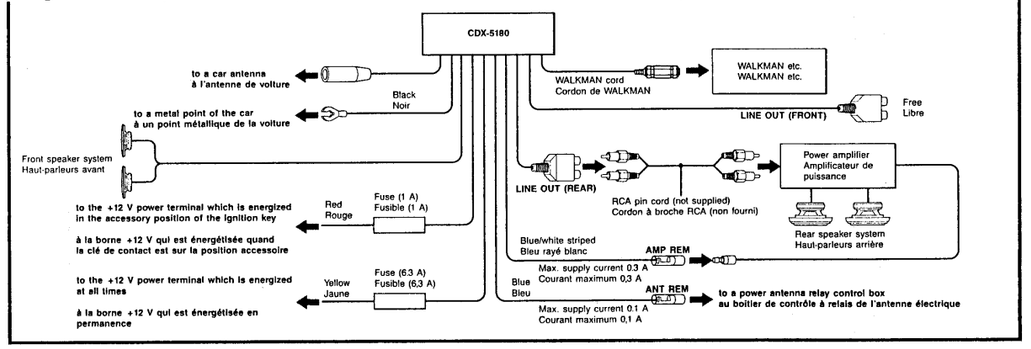
The outputs of the built-in amplifier can be set by the speaker select switch located at the bottom of the unit. After connecting the speakers, be sure to set the switch to the appropriate position.

Switch position	Speaker connection
2 SP	2-speaker connection
4 SP	4-speaker connection



Use a ball-point pen or a similar object to select the position of the switch.
Choisir la position du sélecteur à l'aide d'un stylo ou d'un objet similaire.

Diagram of Example 2


CDX-5180
to a car antenna
à l'antenne de voiture
Black
Noir
to a metal point of the car
à un point métallique de la voiture
Front speaker system
Haut-parleurs avant
WALKMAN cord
Cordon de WALKMAN
WALKMAN etc.
WALKMAN etc.
LINE OUT (FRONT)
Free
Libre
LINE OUT (REAR)
RCA pin cord (not supplied)
Cordon à broche RCA (non fourni)
Power amplifier
Amplificateur de puissance
Rear speaker system
Haut-parleurs arrière
to the +12 V power terminal which is energized in the accessory position of the ignition key
à la borne +12 V qui est énergétisée quand la clé de contact est sur la position accessoire
Red
Rouge
Fuse (1 A)
Fusible (1 A)
Blue/white striped
Bleu rayé blanc
AMP REM
Max. supply current 0.3 A
Courant maximum 0,3 A
to the +12 V power terminal which is energized at all times
à la borne +12 V qui est énergétisée en permanence
Yellow
Jaune
Fuse (6.3 A)
Fusible (6,3 A)
Blue
Bleu
ANT REM
Max. supply current 0.1 A
Courant maximum 0,1 A
to a power antenna relay control box
au boîtier de contrôle à relais de l'antenne électrique

Note on a power antenna
A power antenna without relay control box cannot be used with this unit.

Memory hold connection
When the yellow power input lead is connected, power will be always supplied to the memory circuit, even when the ignition key is switched off.

Connexions

Attention
- Cet appareil est conçu pour ne fonctionner que sur courant continu de 12 V avec masse négative.
- Avant d'effectuer les raccordements, débrancher la borne de masse de la batterie de la voiture pour éviter tout court-circuit.
- Brancher le fil d'alimentation **rouge** après la connexion de tous les autres cordons. Veiller aussi à le raccorder à la borne d'alimentation positive de 12 V qui est énergétisée quand la clé est sur la position accessoire.
- **Acheminer tous les cordons à une masse commune.**

Sélecteur d'alimentation

Lorsque la clé de contact de la voiture ne possède pas de position accessoire
L'éclairage du panneau avant est préréglé en usine pour qu'il s'allume même lorsque l'appareil est hors tension. Toutefois, ce réglage peut user les batteries de la voiture, si la clé de contact ne possède pas de position accessoire.
Pour remédier à cet inconvénient, **placer le sélecteur qui se trouve sous l'appareil sur la position OFF, puis appuyer sur la touche de réinitialisation.** L'éclairage ne fonctionne pas lorsque l'appareil est hors tension.

Schéma des connexions

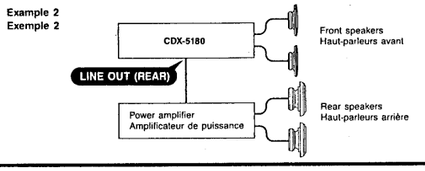
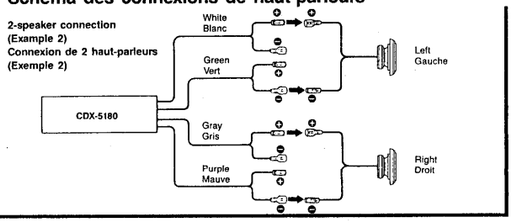


Schéma des connexions de haut-parleurs



Remarques sur la connexion des haut-parleurs
- Utiliser des haut-parleurs d'une impédance de 4 à 8 ohms et d'une capacité de puissance admissible, sinon ils risquent d'être endommagés.
- Ne pas relier les bornes de haut-parleurs au châssis de la voiture et ne pas raccorder la borne du haut-parleur droit à celle du haut-parleur gauche.
- Ne pas raccorder les haut-parleurs en parallèle.

Sélecteur de haut-parleurs

Les sorties de l'amplificateur incorporé peuvent être réglées à l'aide du sélecteur situé sous l'appareil. Après avoir branché les haut-parleurs, vérifier que l'appareil est sur la position correcte.

Position du sélecteur	Connexion des haut-parleurs
2 SP	Connexion de 2 haut-parleurs
4 SP	Connexion de 4 haut-parleurs

Schéma de l'exemple 2

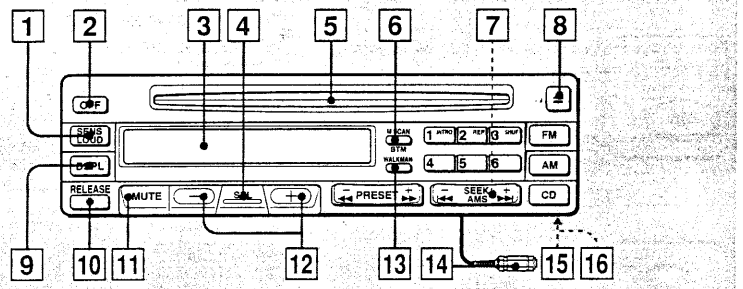
Voir le schéma ci-dessus.

Remarque sur l'antenne électrique
Il est impossible d'utiliser une antenne sans boîtier de contrôle à relais avec cet appareil.

Connexion de maintien de la mémoire
Quand le fil d'entrée d'alimentation jaune est raccordé, l'alimentation est toujours fournie au circuit de la mémoire, même quand la clé de contact est sur la position d'arrêt.

Location of Controls – Refer to the pages indicated in ●

General section



1 **SENS/LOUD (sensitivity/loudness) button ⑱**
Press for more than two seconds to reinforce the bass and treble especially when listening at a low volume level. To disengage the button, press it again for more than two seconds.

2 **OFF (power off) button ⑪**

3 **Display window**

4 **SEL (bass/treble/balance/fader/volume select) button ❾**

5 **Disc insertion slot**

6 **M.SCAN/BTM (memory scan/best tuning memory) button ⑬**

7 **Reset button (located on the front side of the unit hidden by the front panel) ❹**

8 **⏏ (eject) button**

9 **DSPL (display change/time set) button ⑪⑯㉑**

10 **RELEASE (front panel release) button ❽**

11 **MUTE button**
Press to mute the sound momentarily. Press again to restore the previous volume level.

12 **–/+ button ❾**

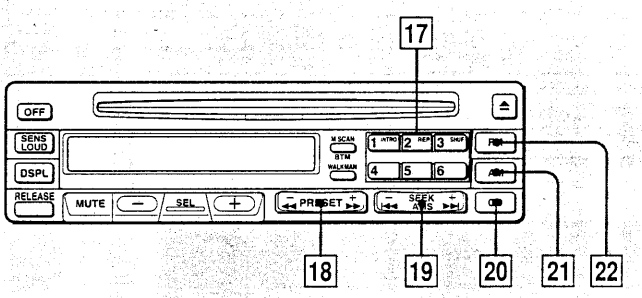
13 **WALKMAN button ⑳**
Press this button when you listen to equipment (WALKMAN etc.) connected to the WALKMAN jack of the unit.

14 **WALKMAN jack ⑳**

15 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT switch" in the Installation/connection manual.

16 **SPEAKER SELECT switch (located on the bottom of the unit)**
See "SPEAKER SELECT switch" in the Installation/connection manual.

Radio/CD section



17

Number	During disc play	During radio reception
1	INTRO button ⑫	Preset number buttons ⑮⑯
2	REP (repeat) button ⑫	
3	SHUF (shuffle) button ⑫	
4	–	
5	–	
6	–	

	During disc play	During radio reception
18	◀◀/▶▶ (manual search) button ⑪	PRESET –/+ (preset search/manual tuning) button ⑯⑲
19	AMS* ⏮/⏭ button ⑪	SEEK –/+ (automatic tuning) button ⑰

20 **CD (disc play) button ⑩⑪**

21 **AM (tuner on) button ⑬**

22 **FM (tuner on/band select) button ⑬**

* Automatic Music Sensor

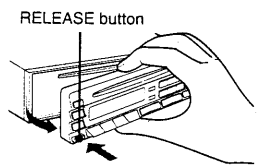
Changing the illumination color
Press the 1 INTRO button while pressing the SEL button.

Detaching and Attaching the Front Panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

Detaching the Front Panel

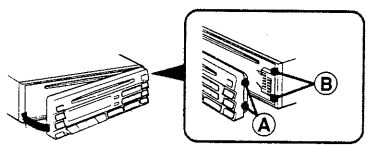
Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel and detach the panel by pulling it towards you as illustrated.



Be sure not to drop the panel when detaching it from the unit.

Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching the part Ⓐ of the front panel to the part Ⓑ of the unit as illustrated and push until it clicks.

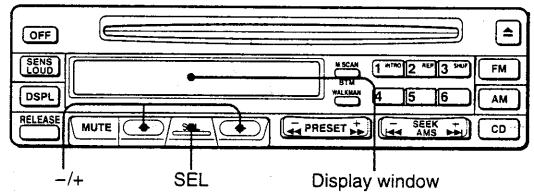


Notes

- Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside-down.
- Do not press the front panel hard against the unit when attaching it to the unit. It can be easily attached by pressing it lightly against the unit.
- When you carry the front panel with you, put it in the supplied front panel case.
- Do not press hard or give excessive pressure to the display window of the front panel.

Adjusting the Sound

Controlling the bass/treble/balance/fader/volume

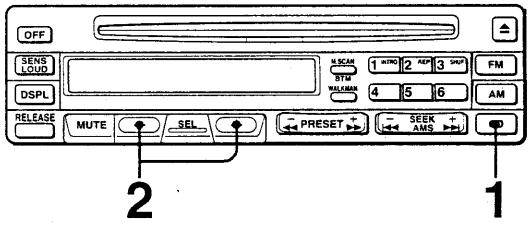


The –/+ buttons normally function as the volume control. Adjust the level within three seconds after selecting the desired control mode with the SEL button. Otherwise, the mode will go back to the volume control mode.

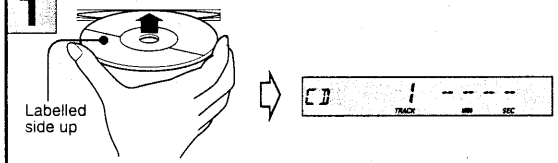
Each time the SEL button is pressed, the display indication will change as follows.

Display window	Control mode	(–) button	(+) button
BAS	Bass	For less bass	For more bass
TRE	Treble	For less treble	For more treble
BAL	Balance	To decrease the right-speakers' volume	To decrease the left-speakers' volume
FAD	Fader	To decrease the rear-speakers' volume	To decrease the front-speakers' volume
VOL	Volume	For less volume	For more volume

Playing a Disc

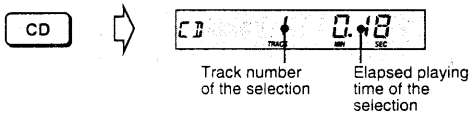


1



When the disc is loaded into the unit, it will start playing the disc from the beginning.

When a disc is already inserted.



2 **Adjust the volume.**

Notes

- Do not insert a disc with the labelled side down. Doing so may damage the unit.
- Do not try to insert another disc when one has been already inserted. Doing so may damage the unit.

At the end of the disc
The track number returns to "1" and CD play will be repeated from the beginning of the disc.

Important
Since the CD system offers a wide dynamic range, the peaks of the high level inputs are recorded with high fidelity and the noise level is very low. Do not turn up the volume while listening to a section with no audio signals or very low level inputs. If you do, the speakers may be damaged when a peak level is played.

To stop disc play	Press the OFF button. To restart playing from the same point, press the CD button.
To remove the disc	Press ⏏. Even if you set the ignition key to the off position, you can remove the disc by pressing ⏏.

Locating a Particular Track

Locating tracks in sequence (Automatic Music Sensor)

You can locate the beginning of a desired track during CD play.

To locate the beginning of the track being played	Press ⏮ once.
To locate the beginning of the next track	Press ⏭ once.

Press repeatedly to the locate previous or succeeding tracks.

Locating a Particular Point of a Track

Locating particular points in sequence (Manual Search)

You can locate a particular point of track during CD play by monitoring the speed up sound.

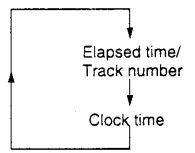
To go back at high speed	Keep ◀◀ pressed.
To go ahead at high speed	Keep ▶▶ pressed.

If you press the FM or AM button during the disc play
The disc play will stop automatically and the radio sound will be heard.

Note on a 3-inch (8 cm) disc
You can play a 3-inch (8 cm) disc without an adaptor.

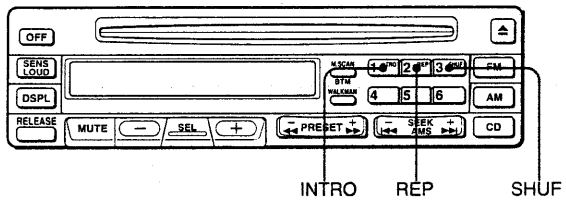
Note on a 5-inch (12 cm) disc
If you leave the disc in the insertion slot after pressing the ⏏ button, the disc will be automatically retracted into the unit in fifteen seconds to protect the disc.
If you press the CD button within fifteen seconds, the disc will be retract and the disc play starts from the beginning of the disc.

To display the elapsed time or the clock time during disc play
Press the DSPL button.
Each press on the button changes the mode cyclically as follows:



If you keep pressing the ▶▶ button
The time counter displays "– – – –" when you have passed the end of the disc. To return to a normal display, press ⏮ or ◀◀ button.

Enjoying the Variety of CD Playing Modes



Playing the Beginnings of Tracks – Intro Scan

You can play the first ten seconds of each track in order.
If you find the desired track, press the button to cancel the mode. The CD play will continue.

1 INTRO

If you press the INTRO button during the shuffle play, the first ten seconds of all tracks will be played in random order.

Playing Repeatedly – Repeat Play

You can repeat the same track.
To cancel:
Press the button again.

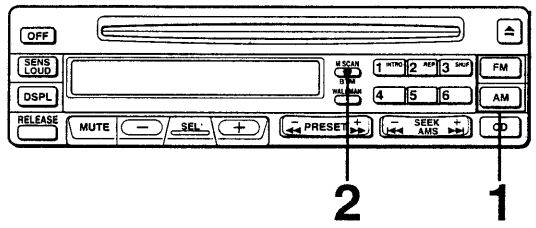
2 REP

Playing in Random Order – Shuffle Play

You can play the tracks in random order.
To cancel:
Press the button again.

3 SHUF

Memorizing the Stations Automatically (Best Tuning Memory Function)



Best receiving stations are automatically searched and memorized on each band (FM1, FM2, FM3 and AM). Up to 6 stations on each band can be stored on the preset buttons 1 to 6 in the order of frequency.

1 **Press to select the desired band.**
The tuner turns on at the same time.

FM or AM

2 **Press for more than two seconds.**

M.SCAN
BTM

The receivable frequencies of FM1, FM2 and FM3 bands are within the same frequency ranges respectively
Therefore, a total of 24 stations can be memorized.

Checking All the Memorized Stations in order – Memory Scan

M.SCAN
BTM
Press lightly.

The tuner will receive in order, all the stations stored in the memory for five seconds each.

To cancel
Press the M.SCAN button lightly once more. The memory scan will be cancelled and you will be able to listen to the station currently being received.

Note
There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.

Memorizing the stations Automatically

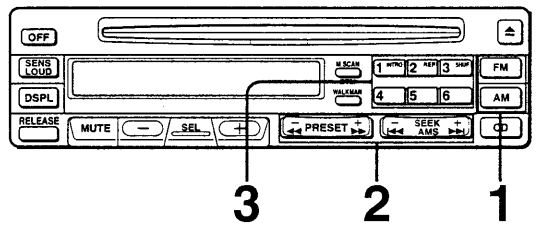
The BTM function – how this function operates

It starts searching stations from the lowest frequency of the currently tuned in band. When a station is located, it will be stored in the memory on the preset number button whose number is indicated on the display window. If there is no preset number indicated, it will be stored in the memory on the preset number button 1 onward. It continues to store the stations in the memory until all the preset number buttons are occupied. For example, if the FM1 band was selected, it will continue until the preset number button 6 on the FM3 band is occupied. When all the preset number buttons are occupied with the memories before the highest receivable frequency is searched, the unit will start searching for higher frequencies from where it was left off. This is to check if there are any more stations with better receptions than the ones already stored in the memory. If a station with better reception is found, the unit will store it in the memory in place of a station with an inferior reception. Lastly, it rearranges all the stations in the order of frequency from the lowest and stores them in the memory. The whole operation is now completed; the stations with better receptions are stored in the memory on the preset number buttons in the order of frequency.

Notes

- There may be a situation where there are not enough receivable stations due to lack of stations in the vicinity or weak broadcasting signals. In such a case the BTM operation may stop without all the buttons being stored with memories.
- If you start the BTM operation from the FM1 band, it will continue to store stations in memory to the FM2 and FM3 bands. Care must be taken if you wish to keep the stored stations on the FM2 and FM3 bands.
- If you start the BTM operation from the FM3 band, it will stop when all the memories on the FM3 band are occupied. It will not continue to the FM1 band.

Memorizing Only Desired Stations Manually



This method is useful when you know the frequency of desired stations which you want to memorize.

1 **Press to select the desired band.**
The tuner turns on at the same time.

FM or AM

2 **Press to tune in a desired station (page 17 or 19).**

SEEK AMS or PRESET

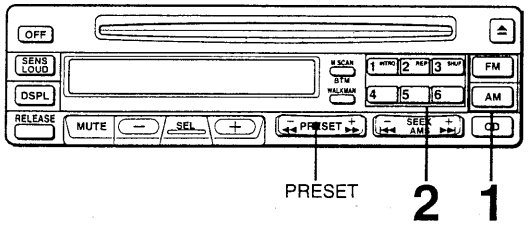
3 **Press for more than two seconds.**
Example: To memorize on the preset number button 1

1 INTRO — FM1 1 10:43

The number of the pressed preset number button will be displayed and the station will be memorized.

Important
Each preset number button has only one memory per band. The previously memorized station will be erased when you enter a new station of the same band on the same preset number button.

Receiving Stations Stored in the Memory



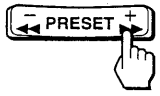
1 **Press to select the desired band.**
The tuner turns on at the same time.

FM or AM

2 **Press the desired preset number button lightly.**

1 INTRO — 6

Receiving the Preset Stations in Order
– Preset Search



The number will advance in the following order:

1 → 2 → . . → 5 → 6 → 1 → 2 → . . .

(number of the preset number button)

The number will reverse in the following order:

6 → 5 → . . → 2 → 1 → 6 → 5 → . . .

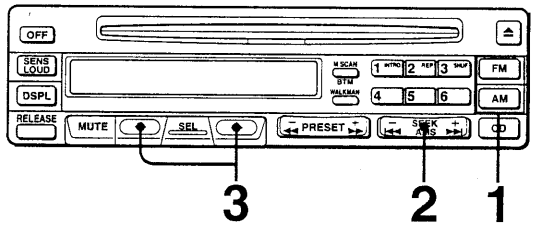
(number of the preset number button)

Notes
- There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.
- If you keep pressing the preset number button for more than two seconds, the currently received station will be memorized again. To receive the previously memorized station, make sure that the preset number button is pressed lightly.

To display the time indication during radio reception
Press the DSPL button.
To restore the frequency indication, press it again.

Note
If you keep pressing the PRESET button for more than two seconds, it also functions as manual tuning button.
If you wish to use this button as preset search button, be sure to press it lightly.

Tuning in Automatically

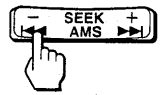


Use this method when you do not know the frequency of desired stations.

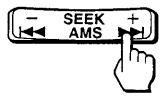
1 **Press to select the desired band.**
The tuner turns on at the same time.

FM or AM

2 **Press to start scanning.**



For lower frequencies



For higher frequencies

The scanning automatically stops when a station is tuned in. Repeat this step until a desired station is tuned in.

3 **Press to adjust the volume.**

When there are too many stations and the scanning stops too frequently during automatic tuning

Press [SENS LOUD] so that the LCL (local) indication appears on the display window.

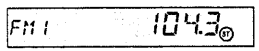
Only the stations with comparatively strong signals can be tuned in.

When the FM stereo program is too weak and noisy

Press [SENS LOUD] so that the MONO (monaural) indication appears on the display window.

The noise will be reduced. The sound will be monaural instead.

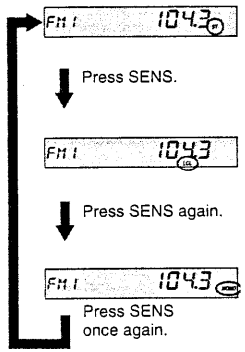
When an FM stereo program of sufficient signal strength is tuned in



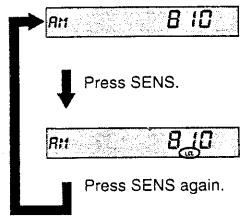
The ST (stereo) indication appears and the program will be automatically received in stereo.

The SENS button functions as follows

When receiving an FM station



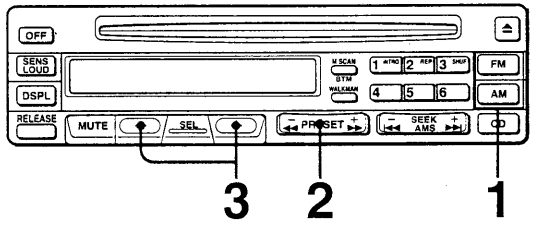
When receiving an AM station



Note

If you keep pressing the SENS button for more than two seconds, it also functions as the LOUD button.

Tuning in Manually



1 **Press to select the desired band.**

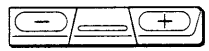
The tuner turns on at the same time.

FM or AM

2 **Press for more than two seconds.**

For lower frequencies — For higher frequencies

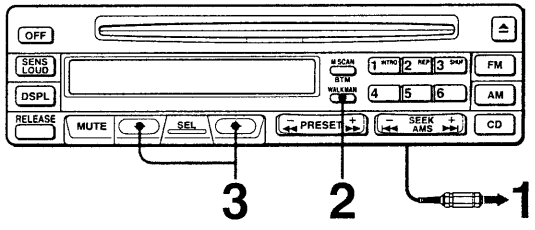
3 **Press to adjust the volume.**



For your safety while driving

Keep your eyes on the road and use the automatic tuning or the memory preset tuning!

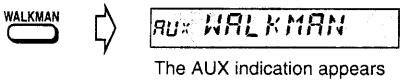
Listening to a WALKMAN



You can connect a WALKMAN or other equipment with a headphone jack to the WALKMAN jack of the unit.

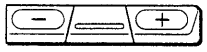
1 **Connect a WALKMAN etc. to the WALKMAN jack with the connecting cord (not supplied).**

2 **Press the WALKMAN button.**



The AUX indication appears on the display window.

3 **Play back a tape on the WALKMAN and adjust the volume.**

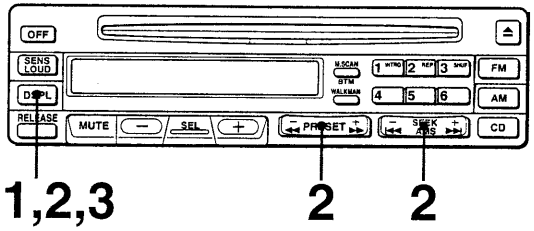


When you wish to stop using the WALKMAN, be sure to turn off the WALKMAN itself as well.

Warning
Be sure to keep the connecting cord away from the vicinity of the driver so that it will not hinder the normal driving condition of the driver.

Notes
- Do not expose the WALKMAN etc. to direct sunlight or a heat source such as hot-air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.
- Press the WALKMAN button on the unit only after the connecting cord is connected.
- Keep the volume of the WALKMAN moderate so that the sound will not be distorted and make sure that the EX DBB button on the WALKMAN is set to the OFF position.
- Operate the equipment connected to the WALKMAN jack with its own batteries. Do not try to operate it with your car battery as this could generate some interference noise.

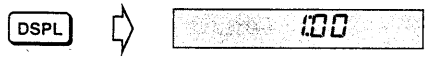
Setting the Clock



Turn the ignition key to the ON position before setting the clock.

Example: To set to 10:08

1 **Press the DSPL button if the clock indication does not come on.**



2 **Press the DSPL button for more then two seconds.**

The clock indication appears and the digits begin to flash.

While holding down the DSPL button

Press SEEK AMS **to set the hour digits.**

(to go back) (to go forward)

Press PRESET **to set the minute digits.**

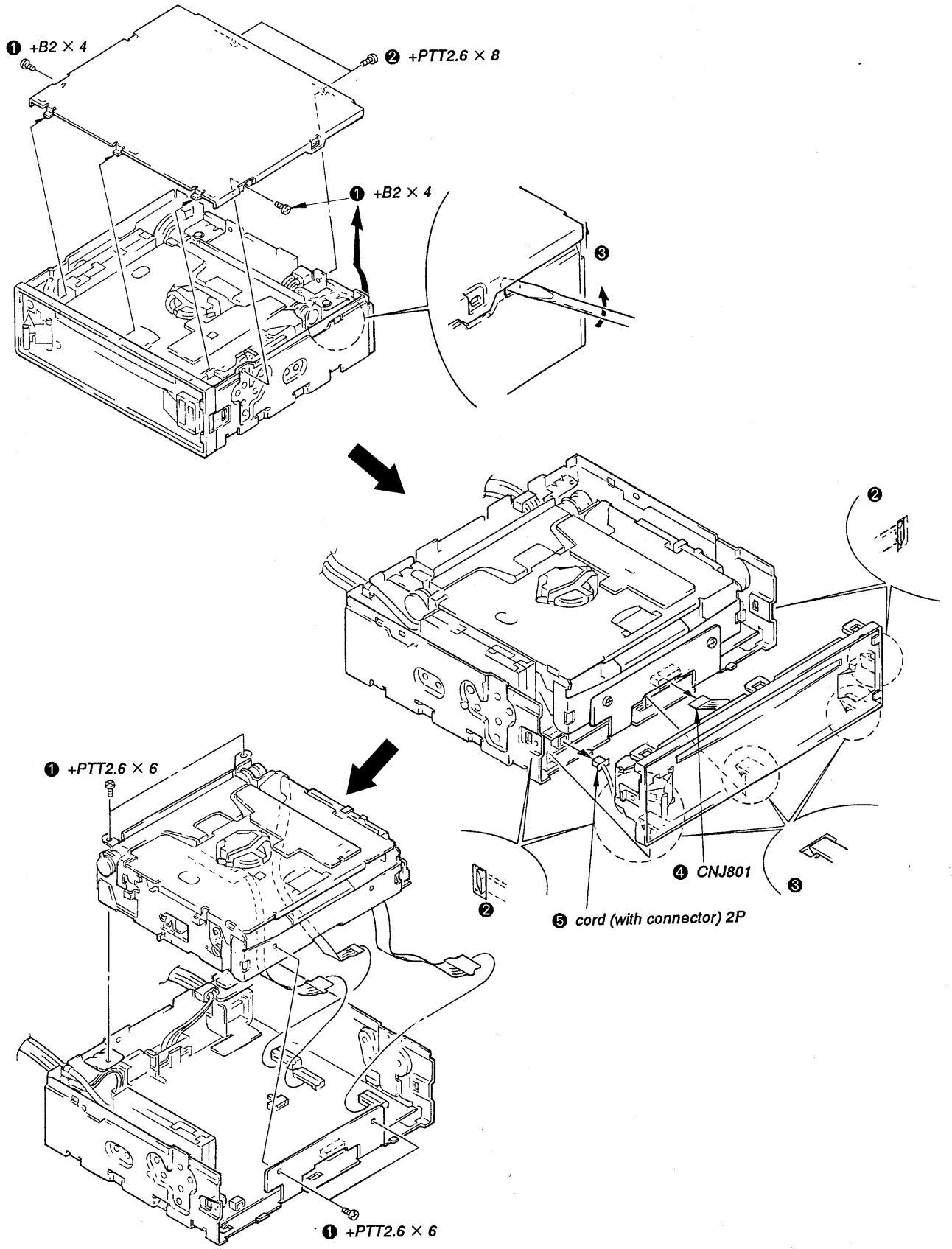
(to go back) (to go forward)

3 **The clock starts activating when you take your finger off the DSPL button.**

Note
If the POWER SELECT switch of this unit is set to the OFF position, the clock cannot be set unless the power is turned on. Set the clock after you turn on the radio or start CD play.

SECTION 2
DISASSEMBLY

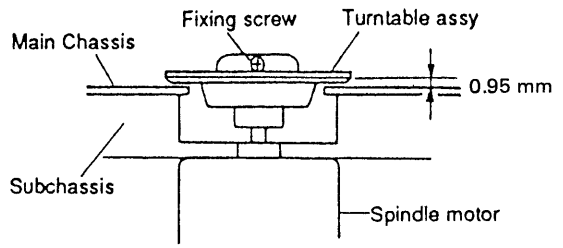
Note: Follow the disassembly procedure in the numerical order given.



SECTION 3
MECHANICAL ADJUSTMENTS

Turntable Height Adjustment

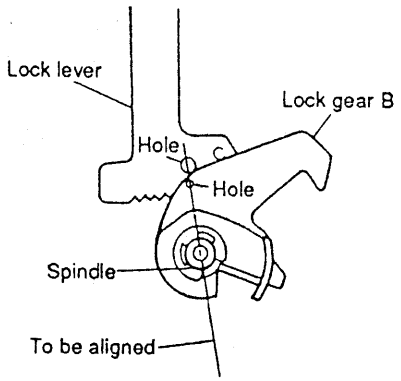
Loosen the fixing screws and adjust the height to the specification illustrated.



Lock Gears (A and B) Installing Adjustment

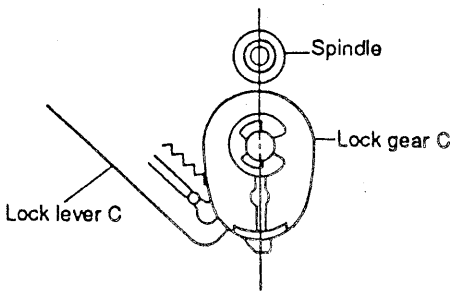
Since installing lock gears A and B is the same, only lock gear B is described below.

1. Rotate the gear near the motor with your fingers to move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix the lock gear so that the holes of the lock lever and the lock gear and the spindle are roughly aligned.



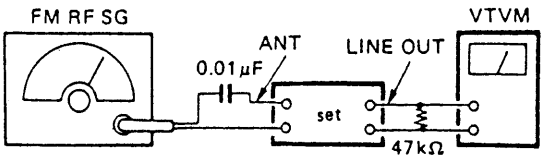
Lock Gear C installing Position Adjustment

1. Rotate the gear near the motor and move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix lock gear C so that the spindle, the lock gear C fixing axis and the center of the lock gear C projection are roughly aligned.



SECTION 4
ELECTRICAL ADJUSTMENTS

FM S Meter Adjustment

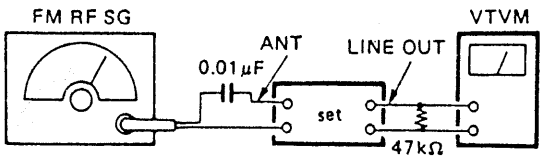


Carrier frequency:	98MHz
Output level:	1mV (More than 35dB)
Mode:	FM
Modulation:	Pilot signal 19kHz, 7.5kHz deviation (10%)

Procedure:

1. Tune the set to 98MHz.
2. Adjust RV603 so that reading on VTVM is 2.0 ± 0.1V.

FM Carrier Leak Adjustment

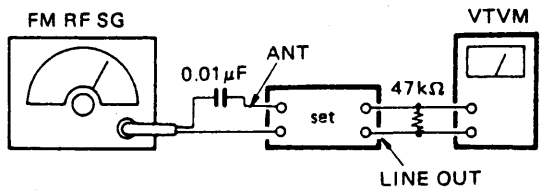


Carrier frequency:	98MHz
Output level:	1mV (More than 40dB)
Mode:	FM
Modulation:	Pilot signal 19kHz, 7.5kHz deviation (10%)

Procedure:

1. Tune the set to 98MHz.
2. Adjust RV601 so that reading on VTVM is minimum level.

FM stereo separation adjustment



Carrier frequency: 98MHz
Output level: 1mV (More than 35dB)
Mode: FM
Modulation: Main channel: 1kHz, 33.75kHz deviation (45%)
Pilot signal: 19kHz, 7.5kHz deviation (10%)
Subchannel: 1kHz, 33.75kHz deviation (45%)

Procedure:

FM Stereo SSG Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	Adjust RV602 so that the VTVM reading is minimum. (B)
R-CH	R-CH	(C)
L-CH	R-CH	Adjust RV602 so that the VTVM reading is minimum. (D)

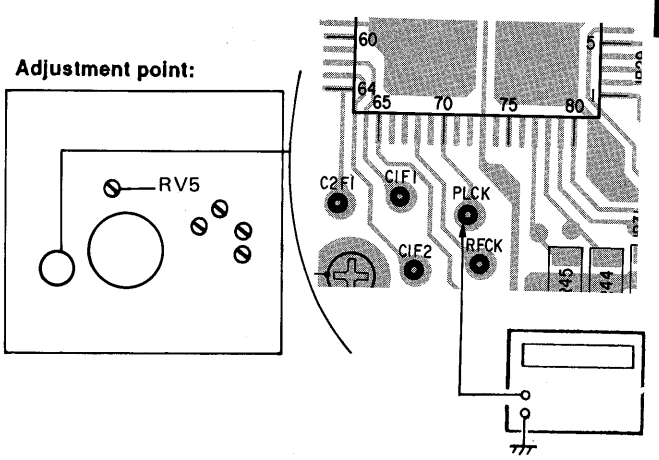
Note: The separation values in the two channels should be identical.
(A) – (B) = (C) – (D)

PLL free-run frequency adjustment

1. Remove the soldering bridge (EFM) from the RF board.
2. Connect the frequency counter to test point (PLCK).
3. Turn the power on and adjust RV5 so that frequency counter reading satisfies the specification.

Adjustable limits: 4.3118 to 4.3318MHz

Adjustment point:

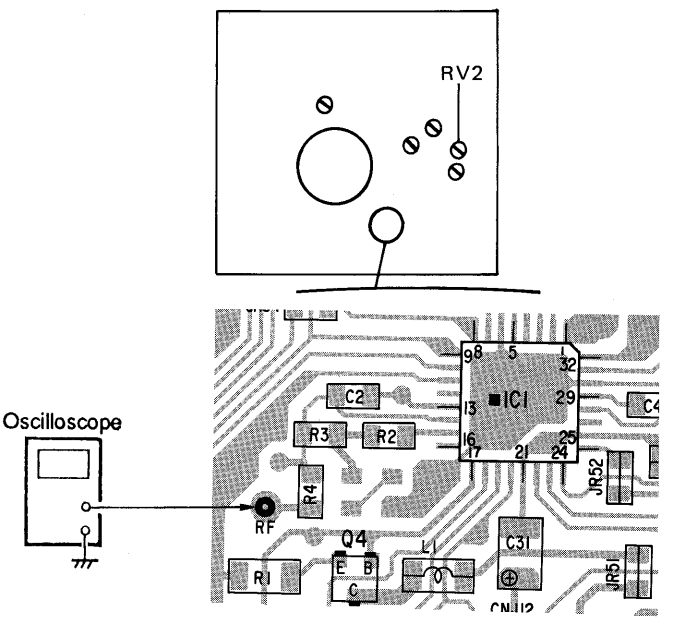


Focus offset adjustment

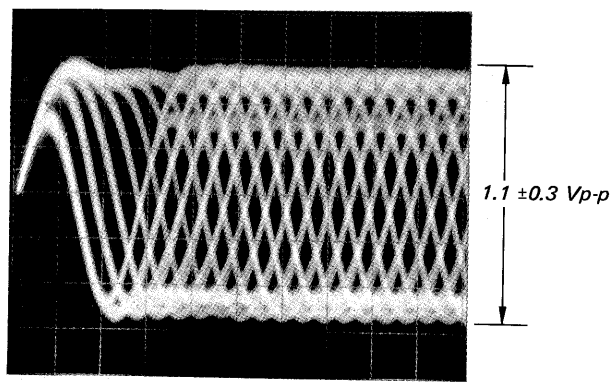
Adjustment:

1. Connect the oscilloscope to test point RF on the RF board.
2. Load a disc and set mode to PLAY.
3. Adjust RV2 so that the waveform on the oscilloscope (eye pattern) is maximum with good shape. "Well-shaped eye pattern" means that the mark " ◇ " is clearly distinguished at the center of the waveform.

Adjustment point: RF board



Volt/div: 200mV
Time/div: 0.5μsec

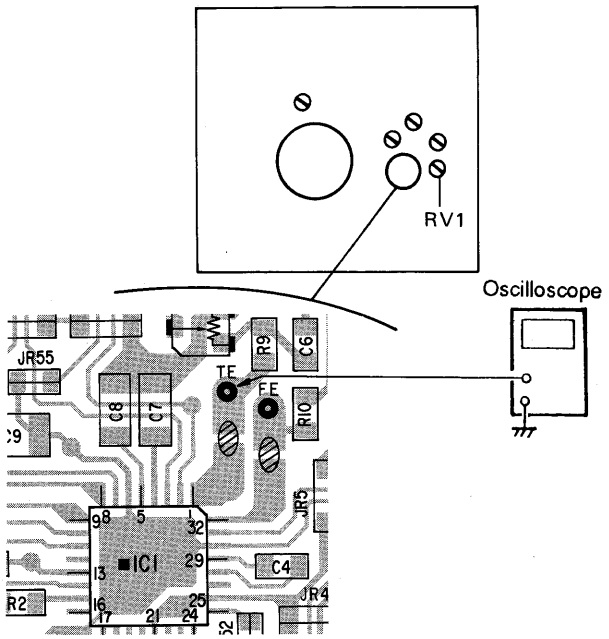


Tracking offset adjustment

Adjustment:

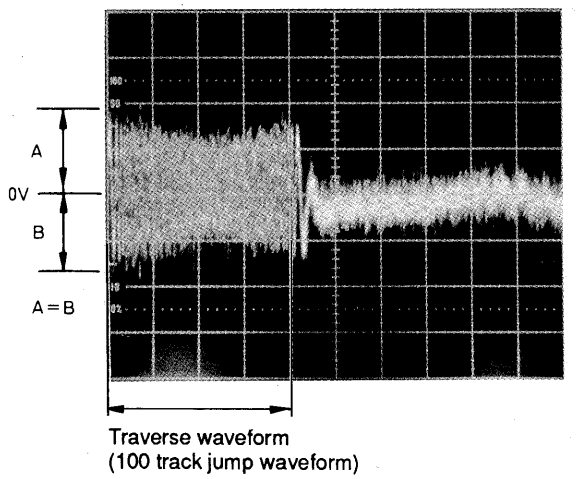
1. Connect the oscilloscope to test point TE on the MD board.
2. Load a disc and set mode to PLAY.
3. Press button ⏮ or ⏭ (◀◀ or ▶▶) and observe the traverse waveform.
4. Adjust RV1 so that the waveform is symmetric when cenetered at the level to be accessed.

Adjustment point: RF board



* Traverse waveform: Tracking error waveform which is observed when the track is traversed.

Volt/div: 0.5V
Time/div: 2msec
Center 0V



Traverse waveform
(100 track jump waveform)

Tracking gain adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

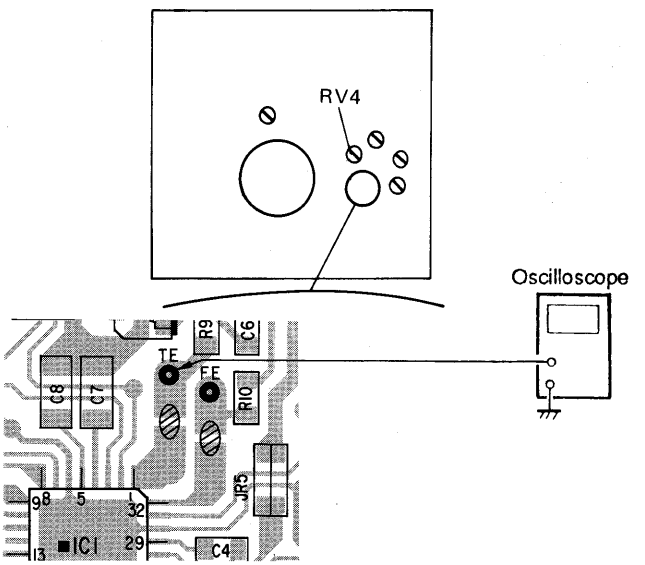
- Optical block
- BF503

Before starting this adjustment, complete the focus offset adjustment and the tracking off set adjustment.

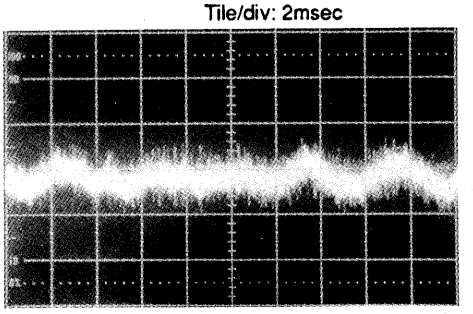
Adjustment:

1. Connect the oscilloscope to test point TE on the main board.
2. Load a disc and set mode to PLAY.
3. Turning RV4 clockwise, from the leftmost position, observe the waveform on the oscilloscope.
   Fix RV4 at the position where the waveform is become stable.

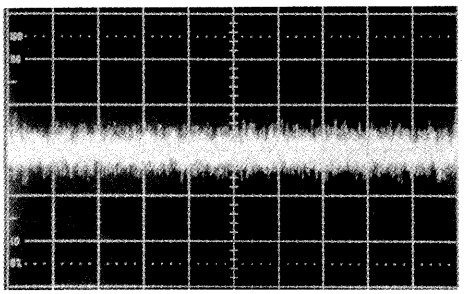
Adjustment point: RF board



Volt/div: 0.5V
Tile/div: 2msec

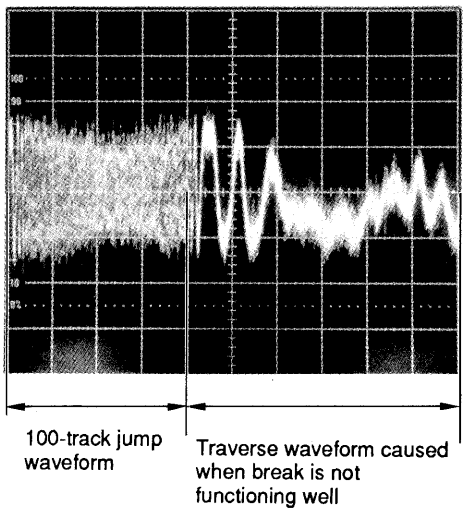


Fluctuating waveform



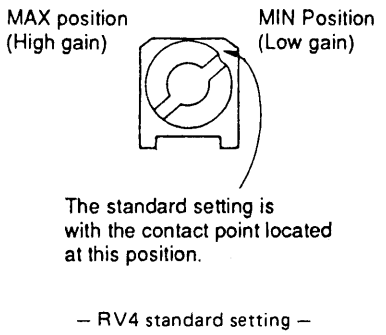
- If the gain is too low

  When music is selected by pressing button ⏮ or ⏭ , the tracking jump waveform is not focused completely and the music selection is delayed. (Break function does not work wall because its gain is too low.)



- If the gain is too high

  Noise due to scratches and dust is heard and the operation becomes unstable.


MAX position (High gain)
MIN Position (Low gain)
The standard setting is with the contact point located at this position.
– RV4 standard setting –

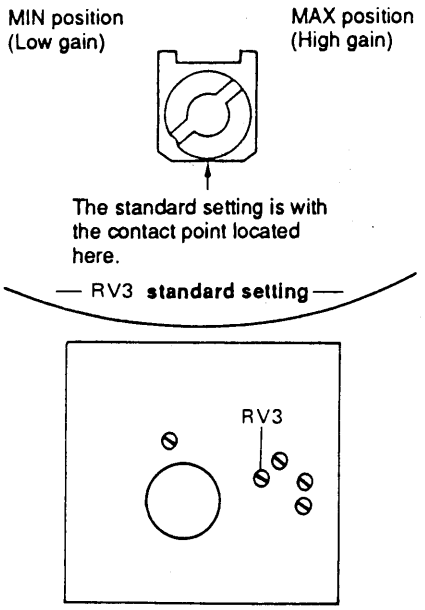
Focus gain adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

- Optical block
- RV3

Adjustment

1. Set RV3 to the standard position.
2. Check whether operation noise (white noise type) caused by the double-axis device (lens section of the optical block) is abnormally loud.
   If the operation noise is too loud, turn RV3 slightly counterclockwise.


MIN position (Low gain)
MAX position (High gain)
The standard setting is with the contact point located here.
— RV3 standard setting —
RV3

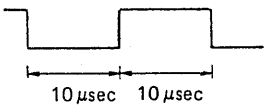
- If the gain is too low:
  Focus does not function and no music is selected.
- If the gain is too high:
  Noise caused by scratches and dust is heard and the operation becomes unstable.

SECTION 5
DIAGRAMS

5-1. MASTER MICROCOMPUTER IC504 (μPD75518GF-029-3B9)

Pin No.	Terminal	I/O	Description
1	CLOCK $\overline{ON}$/OFF	I	Clock function ON/OFF switching.
2	Vref	I	Reference voltage input pin of A/D conversion pin. 5 V is connected when POWER ON.
3	VDD	I	The power supply (5 V) of the micro computer is connected.
4	VDD		
5	MUTE	O	AUDIO MUTE output pin. Active when HIGH.
6	CD RST	O	CD servo IC resetting output pin. Starts it up approx. 300 msec. after the power supply of the servo has been turned ON with the CD PLAY pin.
7	CD DATA	O	SERIAL DATA output pin. Transmits the CD control command and data for the CD servo processor, and for signal processing.
8	CD LATCH	O	Signal output pin for CD DATA latching. The CD DATA is latched when low. Drops to LOW for more than 1 μsec.
9	CD CLK	O	Serial clock output pin for CD DATA reading. The servo IC reads the CD DATA at the rising edge of the CD CLK. (Maximum CLK frequency is 1 MHz.)
10	MD PL	O	Mechanism deck PLUNGER ON/OFF pin. Turns the plunger ON during the chucking and releasing of the disc. • During chucking (12 cm) When E SW is ON during C SW OFF, PL turns OFF by PL ON F SW ON approx. 300 msec. after C SW turns OFF. (8 cm) When E SW is OFF during C SW OFF, PL turns OFF by PL ON F SW ON approx. 300 msec. after E SW turns ON. • During eject PL turns on the moment the loading motor is reversed, and turns OFF approx. 300 msec. after F SW becomes OFF.
11	LM+	O	During disc loading, sets LM+ to HIGH, and LM- to LOW. During eject, sets LM- to HIGH, and LM+ to LOW.
12	LM-	O	
13	———	–	Not used.
14	D MUTE	O	Output which imposes muting at the digital DATA level in the signal processing IC. Used during access and sound muting, etc. Although the AUDIO MUTE (MUTE pin) will also be used at this time, D MUTE will be performed first when MUTE is ON, and performed later when MUTE is OFF.
15	$\overline{APC}$	O	CD PICK UP laser power ON/OFF control output.
16	———	–	Not used.

Pin No.	Terminal	I/O	Description
17	SUBQ	I	Q DATA input pin. Checks SUBQ when SCOR falls, and if it is HIGH (indicating that the data is correct), it will output SQCK and read the data.
18	———————	–	Not used.
19	SQCK	O	Clock output pin for reading the Q DATA. When SQCK is input to the signal processing IC, as the Q DATA will be input to the SUBQ pin, the data will be read at the SQCK rising edge. (Sets the period of SQCK to above 600 msec.)
20	———————	–	Not used.
21	HOT	I	Performs HIGH temperature detection to protect the CD PICK UP laser diode, and prevents CD play when the temperature is high. HIGH will be input during the high temperature condition.
22	$\overline{\text{F SW}}$	I	Mechanism deck sensor input pin. (Valid during MD ON condition.) Detects the completion of the DISC chucking operation. (LOW ACTIVE) MD PL turns OFF when F SW drops to LOW during loading.
23	SENS	I	Input pin which obtains various information from the servo IC. The output content changes according to the data transmitted to the IC. LIMIT SW condition, auto sequencer BUSY, etc. will be output.
24	$\overline{\text{ACC CHECK}}$	I	ACC line $\overline{\text{ON}}$/OFF detection.
25	Key microcomputer RST	O	Outputs HIGH when the KEY micro computer is reset during the starting up of the KEY micro computer V_{DD}, etc.
26	$\overline{\text{EMPHASIS}}$	O	Outputs LOW when a DISC which has been preemphasized is played back. (The Q DATA control bit coincides twice.)
27	———————	–	Not used.
28	———————	–	
29	E SW	I	Mechanism deck sensor (optical sensor) input pin. Used as the trigger at the beginning of the DISC chucking operation. Turns the MD PL ON approx. 300 msec. after the E SW becomes HIGH.
30	D SW	I	Mechanism deck sensor (optical sensor) input pin. 12 cm DISC and 8 cm DISC detections. Detects the completion of the 12 cm DISC EJECT. (LOW ACTIVE) After the 12 cm DISC has been ejected, detects loading start (turns ON at HIGH), when the DISC is inserted again with the C SW ON.

Pin No.	Terminal	I/O	Description
31	B SW	I	Detects that the center hole of the DISC passes by during mechanism deck sensor (optical sensor) loading and EJECT. (The optical sensor operates when the MD ON is HIGH. The rest is the same.)
32	$\overline{\text{G SW}}$	I	Mechanism deck sensor input pin. Displays the locked condition of the mechanism deck floating section. Sets to float lock condition when the DISC is ejected. The power supply of the servo IC has to be turned on because it is necessary to rotate the SLED motor inwards with the servo IC to turn the G SW ON. (CD PLAY pin ON)
33	VSS	I	Connected to GND.
34	TEST	I	
35	S MEMO $\overline{\text{ON}}$/OFF	I	
36	———————	–	Not used.
37	$\overline{\text{TEL MUTE}}$	I	When this pin becomes LOW, the TELEPHONE MUTE function operates, and lowers the volume by 20 dB.
38	CLK OUT	O	The DATA output from the master micro computer will be read at the rising edge when the DATA is transmitted from the communication serial CLOCK output master by the BUS, and when the data is received from the slave. CLK period is above 10 μsec. 
39	S GAIN	O	Although the CD mechanism deck for only one DISC can PLAY both 12 cm and 8 cm CDs without an adaptor, as the 8 cm weight less, it is necessary to switch the GAIN of the spindle servo. When the DISC is loaded, it determines if the DISC is 12 cm or 8 cm according to the conditions of each sensor. If the DISC is 8 cm, the deck sets this pin to LOW. (Condition of the sensors) 12 cm: B.D.E HIGH C.F LOW 8 cm: B.E HIGH C.D.F LOW
40	———————	–	Not used.
41	$\overline{\text{TEST}}$	I	When dropped to LOW, TEST mode 1 will be set.
42	ANT ON	O	ON/$\overline{\text{OFF}}$ control of the TUNER BLOCK power supply ANT REM.
43	ACC ON ILL	O	Turns ON/$\overline{\text{OFF}}$ by being linked to ACC line when the P/S SW is ON. Linked to POWER ON when the P/S SW is OFF.
44	POWER ON	O	ON/OFF control pin of the AMP REM, PRE AMP power supplies, PLL IC power supply, etc.

Pin No.	Terminal	I/O	Description
45	BEEP	O	Not used.
46	———————	–	Not used.
47	NOSE OFF	I	Detects the removal of the attaching and removing type operation block. Becomes HIGH when the operation block has come OFF. Turns OFF the KEY 5 V, ACC ON ILL, POWER during NOSE OFF. (Also turns OFF TUNER +B when TUNER ON.)
48	C SW	I	CD mechanism deck sensor input. CSW is used for detection when a DISC is inserted, and when the 8 cm DISC has been ejected. (Chattering during ON and OFF is recognized.) Performs DISC loading when a DISC is inserted during B/U ON, ACC ON, and NOSE ON. (Interrupting pin)
49	SCOR	I	Timing input pin which reads the Q DATA (time data, etc.) from the signal processing IC. Imposes an interruption at falling, and reads the Q DATA. (Interrupting pin)
50	DATA IN	I	DATA input pin for communication by BUS.
51	DATA OUT	O	Serial DATA output pin for BUS communication. Outputs SYNC pattern when communication is not performed in the BUS active condition. (IDLE condition)
52	CLK IN	I	Timing input for BUS serial DATA output.
53	B/U CHECK	I	BATT line ON/$\overline{\text{OFF}}$ detection. (Interrupts when rising and falling.)
54	VSS	I	Connected to GND.
55	XT1	–	The sub CLOCK (32,768 kHz) for CLOCK is connected.
56	XT2	–	
57	VSS	I	Connected to GND.
58	X1	–	The system CLOCK (6.0 MHz) is connected.
59	X2	–	
60	RESET	–	Set RESET.
61	$\overline{\text{SYSTEM RST}}$	O	Outputs when the master resets all systems connected to the BUS. (A different pin is used for the KEY micro computer of the attaching and removing type operation section = KEY micro computer RST.)

<table>
<tr><th>Pin No.</th><th>Terminal</th><th>I/O</th><th>Description</th></tr>
<tr><td>62</td><td>$\overline{\text{BUS ON}}$</td><td>O</td><td>When the BUS is in the ACTIVE condition, the BUS ON LINE in the BUS will become HIGH. This pin controls the $\overline{\text{ON}}$/OFF of this BUS ON 5 V.
● Sets to OFF during the SLEEP condition. (When communication is not performed during OFF, ACC OFF.)
● Sets to ON during the ACTIVE condition. (During communication or IDLE condition.)</td></tr>
<tr><td>63</td><td>$\overline{\text{KEY 5 V ON}}$</td><td>O</td><td>Turns the KEY 5 V ON during KEY micro computer VDD $\overline{\text{ON}}$/OFF, control, B/U ON, and NOSE ON.</td></tr>
<tr><td>64</td><td>————————</td><td>–</td><td rowspan="2">Not used.</td></tr>
<tr><td>65</td><td>————————</td><td>–</td></tr>
<tr><td>66</td><td>VOL CE</td><td>O</td><td>Outputs HIGH when the DATA is transmitted to the electronic VOL.</td></tr>
<tr><td>67</td><td>VOL CLK</td><td>O</td><td>Pin which outputs CLOCK which transmits to the VOL IC.</td></tr>
<tr><td>68</td><td>VOL DATA</td><td>O</td><td>Pin which outputs DATA which transmits to the VOL IC.</td></tr>
<tr><td>69</td><td>CD PLAY</td><td>O</td><td>Turns the servo IC power supply ON/$\overline{\text{OFF}}$.
Turns it ON during CD PLAY, the float lock operation.</td></tr>
<tr><td>70</td><td>MD ON</td><td>O</td><td>Power supply ON/$\overline{\text{OFF}}$ control output pin of the mechanism deck sensor, loading motor, and plunger.
When the mechanism deck is to be operated during the float lock condition, it can be operated merely with MD ON.</td></tr>
<tr><td>71</td><td>S2</td><td>O</td><td rowspan="2">AUDIO signal switching control output.
The four types of SCORE-CD and TUNER, AUDIO input from the NEW BUS slave, AUX input of WALKMAN, etc. of this unit can be set.
<table><tr><th>S1</th><th>S2</th><th>SOURCE</th></tr><tr><td>0</td><td>0</td><td>CD</td></tr><tr><td>1</td><td>0</td><td>AUX</td></tr><tr><td>0</td><td>1</td><td>SLAVE</td></tr><tr><td>1</td><td>1</td><td>TUNER</td></tr></table>1: High
0: Low</td></tr>
<tr><td>72</td><td>S1</td><td>O</td></tr>
<tr><td>73</td><td>VSS</td><td>I</td><td>Connected to GND.</td></tr>
<tr><td>74</td><td>P/S SW ON/$\overline{\text{OFF}}$</td><td>I</td><td>PS SW ON mode which sets the lighting of the FUNCTION KEY to ON or OFF when the ALL OFF condition has been set during ACC ON. (PLUS LCD display power supply when a CLOCK is present.)</td></tr>
<tr><td>75</td><td>$\overline{\text{WM IN}}$</td><td>I</td><td>WALKMAN input button valid/invalid switching.</td></tr>
</table>

Pin No.	Terminal	I/O	Description
76	GFS	I	Becomes HIGH when the frame sync (sync signal recorded in the DISC) is locked by PLL. When GFS stays LOW for more than 32 msec. during PLAY, it turns the D MUTE ON and the SLED servo OFF. When the GFS becomes HIGH once again and stays HIGH for more than 64 msec., it turns the D MUTE OFF and the SLED servo ON. When the GFS stays LOW for more than 5μsec., it determines that a malfunction has occurred, and performs stop and ejection.
77	FOK	I	As it becomes HIGH by the timing which can be focused during FOCUS search, it turns the FOCUS servo ON by detecting the timing (HIGH). (This process is not performed when the automatic sequence is used.) Becomes HIGH when focused during PLAY. If it remains LOW for more than 64 msec., it determines that the timing is out of FOCUS, and performs FOCUS search once again. It searches the point which is 1μsec. ahead of the "out of FOCUS" point, and performs PLAY.
78	$\overline{10}$/6 KEY	I	Pin which switches the preset KEY to 10-KEY or 6-KEY.
79	$\overline{\text{DIGITAL IN}}$	I	DIGITAL input function switching pin.
80	$\overline{\text{ALARM}}$	I	Performs switching of the alarm output function when the ACC KEY has been turned OFF without removing the nose piece.

5-2. MASTER MICROCOMPUTER IC601 (μPD75116GF-F40-3BE)

Pin No.	Terminal	I/O	Description
1	————	–	Not used.
2	————	–	
3	————	–	(Connected to GND.)
4	————	–	
5	————	–	
6	————	–	
7	RESET	–	Reset input pin.
8	X2	–	Connecting pins of the ceramics oscillator (4.19 MHz).
9	X1	–	
10	PLL-DI	I	Data input pin for the PLL-IC.
11	PLL-DO	O	Data output pin for the PLL-IC.
12	PLL-CLK	O	Clock output pin for the PLL-IC.
13	PLL-CE	O	Chip enable output pin for the PLL-IC.
14	————	I	MODE select input pins.
15	————	I	
16	————	I	
17	————	I	
18	————	I	
19	————	I	
20	————	I	
21	————	I	
22	RDS-DI	I	Not used.
23	$\overline{\text{RDS-D-Start}}$	I	Not used.
24	$\overline{\text{RDS-ERR}}$	I	Not used.
25	$\overline{\text{RDS-Receive}}$	I	Not used.
26	VSS	–	GND pin.
27	————	–	(Connected to GND.)

Pin No.	Terminal	I/O	Description
28	————	–	(Connected to GND.)
29	RDS-CLK	I	Not used.
30	BUS-ON	I	Bus on input pin. Interrupting pin which detects bus ON/OFF. Recognizes the interrupting request flag (IREQ0) when the micro computer is in the operation mode. When the micro computer is in the STOP mode, this interruption is used to release the STOP mode. Before the STOP command is executed, it sets the interruption permission flag (IE0), interruption request flag (IE4), and INT0 edge detection mode register (IM0).
31	————	–	Not used. (Connected to VSS or VDD.)
32	ST IN	I	STEREO input pin. STEREO at level "L". This pin becomes "L" during forcible monaural output. The display DATA will always be transmitted at "0".
33	Vsm (FM)	I	FM S meter voltage detection pin. Uses the AD conversion function during BTM.
34	Vsm (AM)	I	AM S meter voltage detection pin.
35	————	–	Not used. (Connected to VSS or VDD.)
36	————	–	
37	ANT-ON	O	ANT-ON output pin. Outputs level "H" when the POWER of the TUNER is ON.
38	$\overline{\text{RDS-RESET}}$	O	Not used.
39	Request	O	BUS request output pin. Pin for requesting communication. Requests at level "H".
40	LINK-OFF	O	BUS link OFF output pin. Links OFF at output level "H". Becomes "L" when the BUS is continuous. Remains at output level "L" if the link condition is set during the CLOCK STOP mode, and sets the input condition when the BACKUP turns OFF.
41	SI	I	BUS DATA input pin. Serial DATA input.
42	SO	O	BUS DATA output pin. Serial DATA output.
43	SCK	I	BUS CLOCK input pin. Serial CLOCK input for communication by the BUS. Outputs the CLOCK from IC504 during both transmission and receiving with the CLOCK sync 8 bits.

Pin No.	Terminal	I/O	Description
44	B UP	I	BACKUP detection input pin. Input pin for detecting BACKUP, and used for interrupting. When the micro computer is in the operation mode, it recognizes the BACKUP modification by the detections of both rising and falling edges of the interrupting request flag (IRQ4). As interruption is not performed, the interrupting permission flag (IE4) is prohibited. When the micro computer is in the STOP mode, this interruption is used to release the STOP mode.
45	———	–	Not used.
46	———	–	
47	———	–	
48	$\overline{\text{MONO}}$	O	Forcible monaural output pin. Output pin for switching the STEREO mode level "H" output, and the forcible monaural mode level output "L". When the AM band is set, the MS4 (mode selector pin) is valid only at "1". During TA interruption and alarm, it will output the forcible monaural level output "L" regardless of the mode set.
49	———	–	Not used.
50	———	–	
51	$\overline{\text{FM-FE-ON}}$	O	FM power supply control output pin. Outputs level "L" when FM.
52	$\overline{\text{AM-FE-ON}}$	O	AM power supply control output pin. Outputs level "L" when AM.
53	MUTE	O	MUTE output pin.
54	———	–	Not used.
55	———	–	
56	———	–	
57	V_{DD}	–	Power supply pin.
58	VDD	–	
59	SD	I/O	SD input pin. Determines the STOP levels of SEEK, AUTO-MEMORY, SCAN, etc. Outputs level "L" during AM receiving (during MUTE-OFF).
60	———	–	Not used.
61	EEP-SCK	O	EEP PROM CLOCK output pin.
62	EEP-SDA	I/O	EEP PROM DATA input/output pin.
63	———	–	Not used.
64	———	–	

5-3. TUNER MICROCOMPUTER IC603 (LC7216M)

Pin No.	Terminal	I/O	Description
1	XIN	I	Connecting pin of the crystal oscillator. (7.2MHz)
2	CE	—	Chip enable input pin.
3	DI	—	Data input pin.
4	CL	—	Clock input pin.
5	DO	—	Data output pin.
6	————	—	Not used.
7	————	—	
8	————	—	Not used.
9	————	—	Not used.
10	————	—	
11	$\overline{\text{DX/LO}}$	O	DX/LO switching control output pin. Output level "H" LOCAL.
12	SEEK	O	SEEK OUT output pin. Output level "L" when change the frequency.
13	LCTR	–	General–counter frequency measurement signal input pin.
14	HCTR	–	General–counter frequency measurement signal input pin.
15	AMIN	–	AM local oscillator signal input pin.
16	FMIN	–	FM local oscillator signal input pin.
17	VDD	–	Power supply pin. (4.5V–6.5V)
18	PD	–	Change pump output pin.
19	VSS	–	GND.
20	XOUT	O	Connecting pin of the crystal oscillator. (7.2MHz)

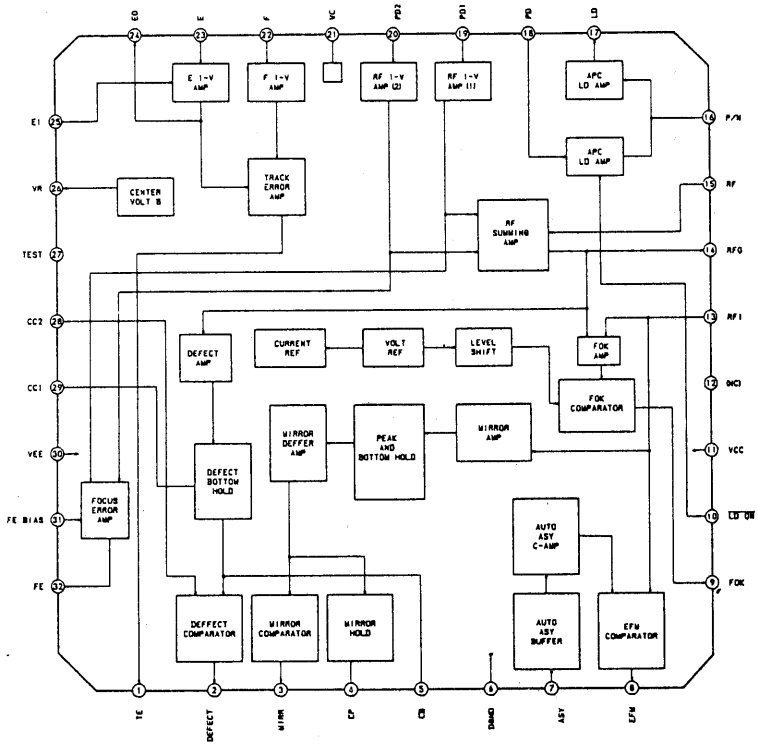
5-4. KEY DISPLAY MICROCOMPUTER IC802 (μPD75008GB-3B4)

Pin No.	Terminal	I/O	Description
1	KI6	I	KEY SCAN input pin.
2	KI5	I	
3	KI4	I	
4	KI3	I	
5	KI2	I	
6	KI1	I	
7	KI0	I	
8	KO3	O	KEY SCAN output pin.
9	KO2	O	
10	KO1	O	
11	KO0	O	
12	NC	–	(Connected to VDD.)
13	NC	–	Not used. (Connected to VDD.)
14	NC	–	
15	NC	–	
16	NC	–	
17	VSS	–	VSS pin.
18	XT1	–	(Connected to GND.)
19	XT2	–	Not used.
20	$\overline{\text{RESET}}$	I	Resetting pin.
21	X1	I	System CLOCK oscillation connecting pin. Connected to 4.19 MHz.
22	X2	–	
23	LCD CLK	O	Pin which outputs CLOCK to the LCD DRIVER IC. (IC703: TC9240F)
24	LCD DATA	O	Pin which outputs DATA to the LCD DRIVER IC.
25	LCD CE	O	Pin which outputs CE to the LCD DRIVER IC. Used as a latch signal when transmitting the DATA.
26	LCD INH	O	Pin which outputs INH to the LCD DRIVER IC.
27	LINK OFF	O	Not used. (NC)
28	REQ	O	UNILINK BUS interface request pin. Outputs HIGH when requesting communication to the master micro computer (IC501).
29	DATA IN	I	Serial DATA input and communication timing detections input pin. (UNILINK BUS interface, DATA input pin)
30	DATA OUT	O	Serial DATA output pin. (UNILINK BUS interface, DATA output pin)

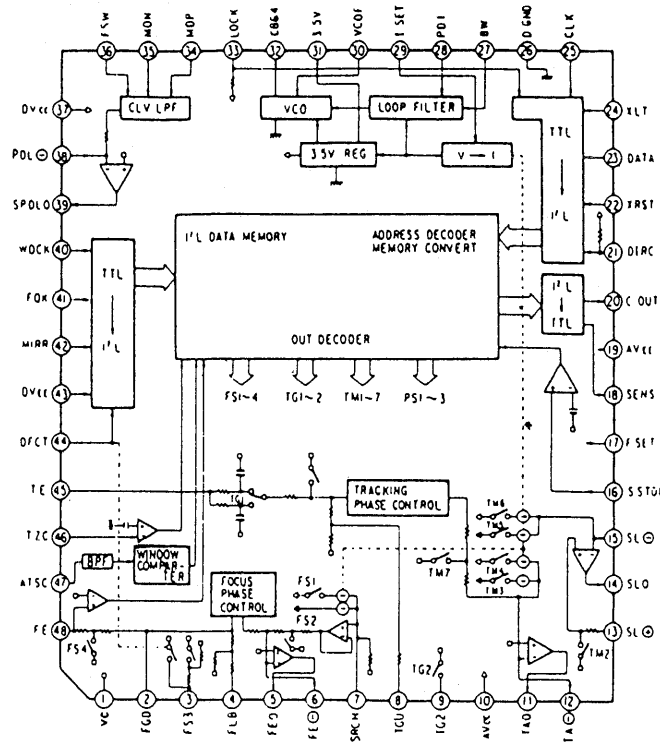
Pin No.	Terminal	I/O	Description
31	CLK IN	I	Clock input pin for serial communication. (UNILINK BUS interface, clock input pin)
32	BU CHECK	I	Power supply voltage detection pin.
33	———————	–	(Connected to GND.)
34	NC	–	(Connected to VDD.)
35	$\overline{\text{TV CONT}}$	I	Initial setting pin for the ON/OFF of the hideaway TV tuner control function. TV control will be ON at LOW input, and OFF at HIGH input.
36	$\overline{\text{BUS ON}}$	I	UNILINK BUS interface, BUS ON pin. BUS communication is possible at LOW input.
37	SIRCS	–	(Connected to GND.)
38	NC	–	(Connected to VDD.)
39	VDD	–	VDD pin.
40	LCD ON	O	Power supply control pin of the LCD back-light and LCD DRIVER IC.
41	ACC-ON ILL	O	Output pin for lighting the function key buttons, etc. HIGH output at ACC ON, and LOW output at ACC OFF. (When the power select SW is ON.) (Not used.)
42	P-ON ILL	O	Output pin for lighting buttons other than the function keys. HIGH output at power ON, and LOW output at OFF.
43	COLOR	O	Output pin for switching lighting colors. Green at HIGH output, output, and amber at LOW output.
44	K17	–	Not used.

• IC Block Diagrams

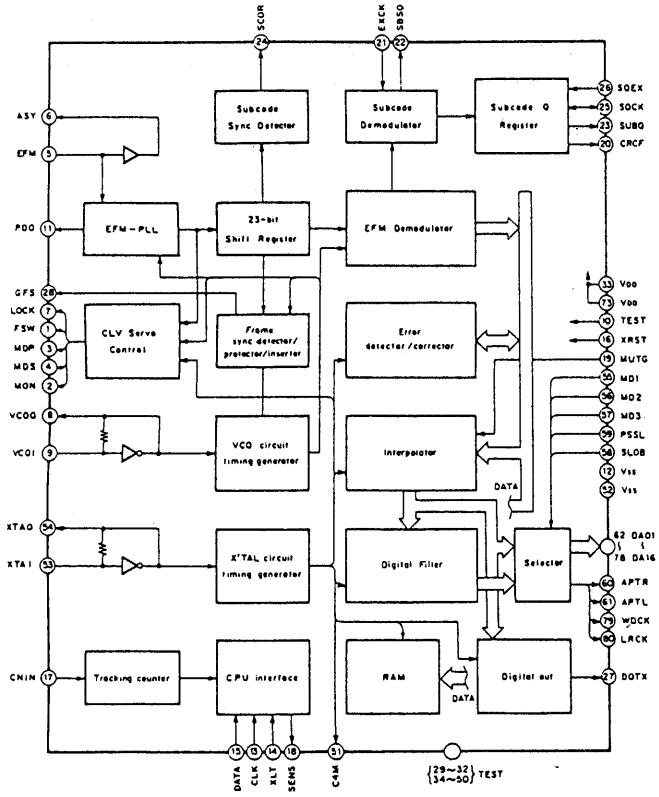
IC1 CXA1081Q



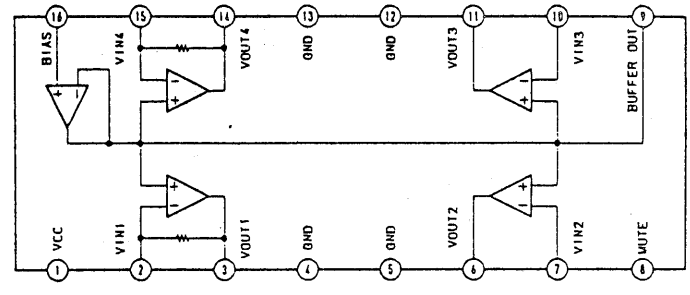
IC2 CXA1082BQ



IC3 CXD1167Q

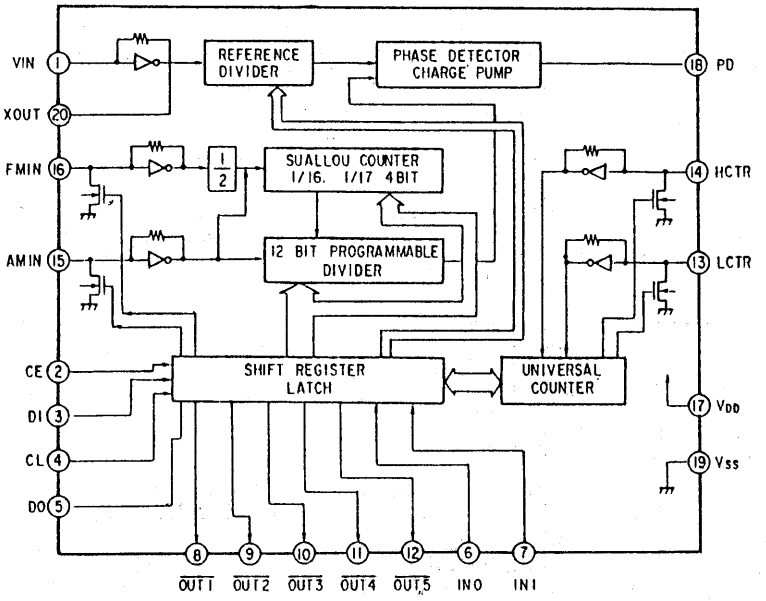


IC4, 5 LA6533

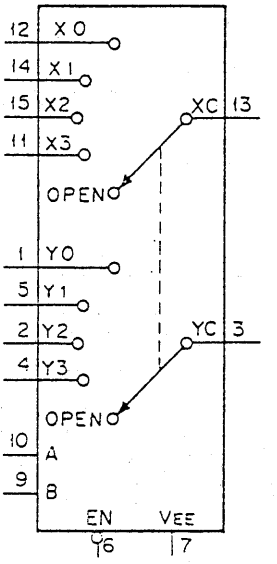


- **IC Block Diagrams**

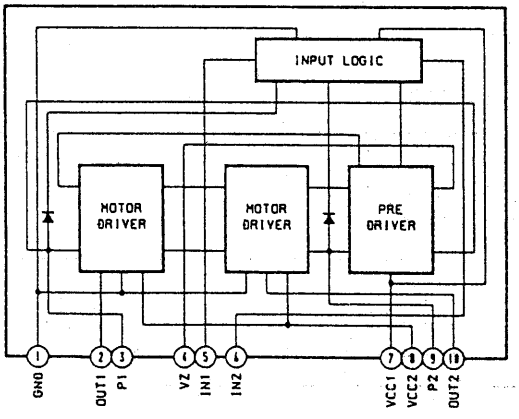
IC603 LC7216M



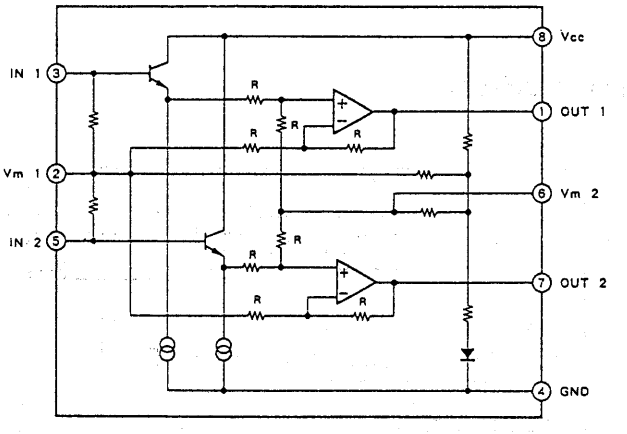
IC302 BU4052BF



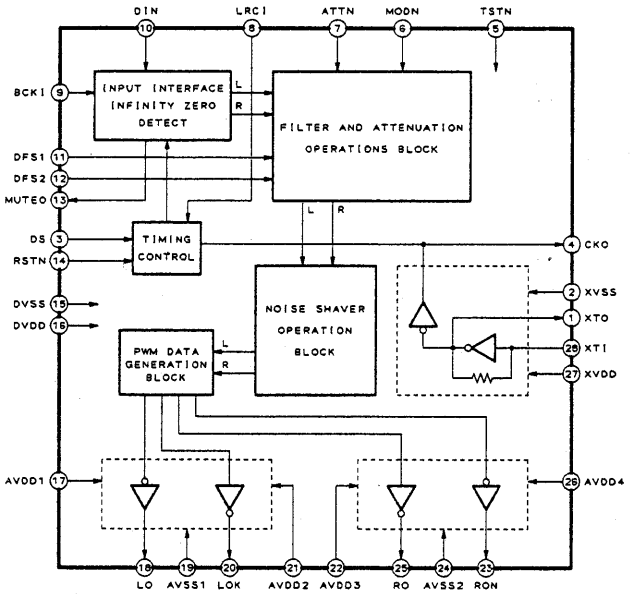
IC952 LB1645N



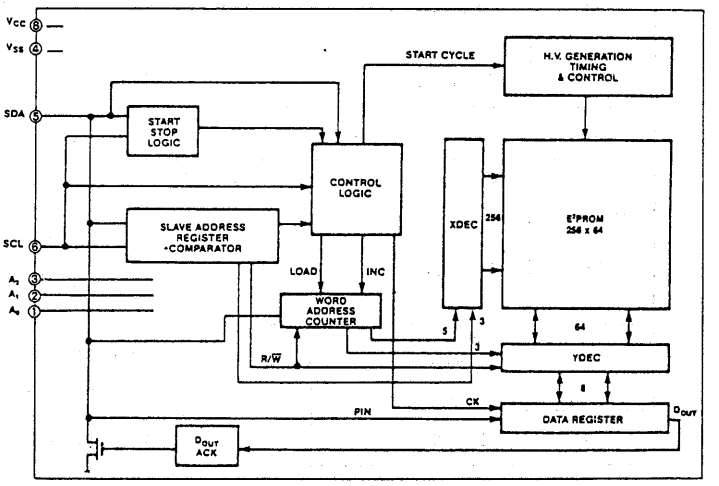
IC304 BA3121F



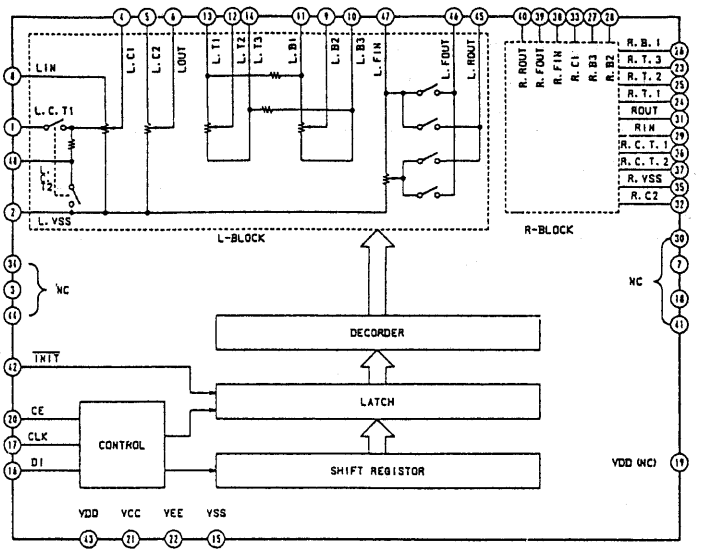
IC901 SM5871AS



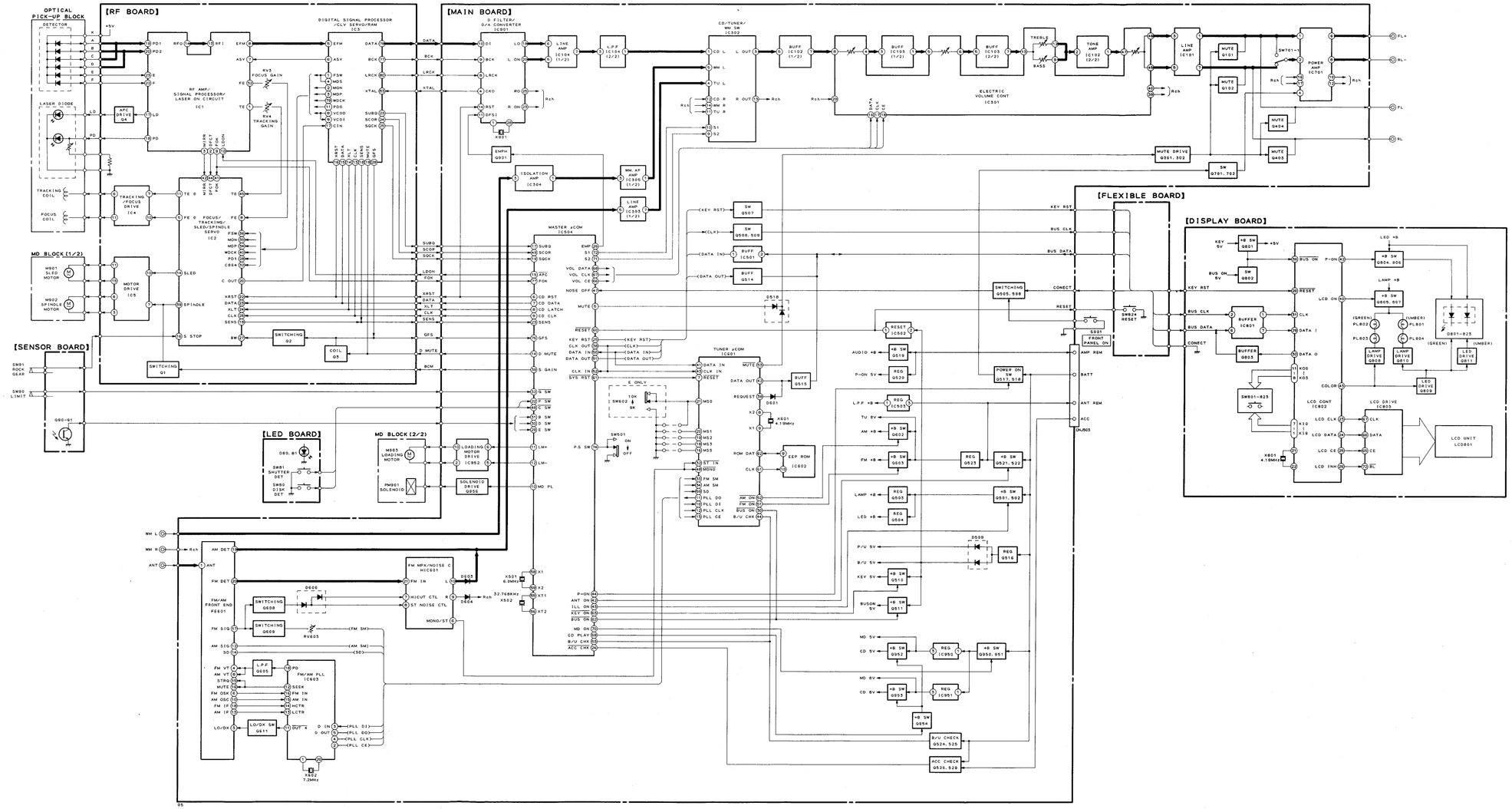
IC602 X24C04SI



IC301 LC7537AN



5-5. BLOCK DIAGRAM



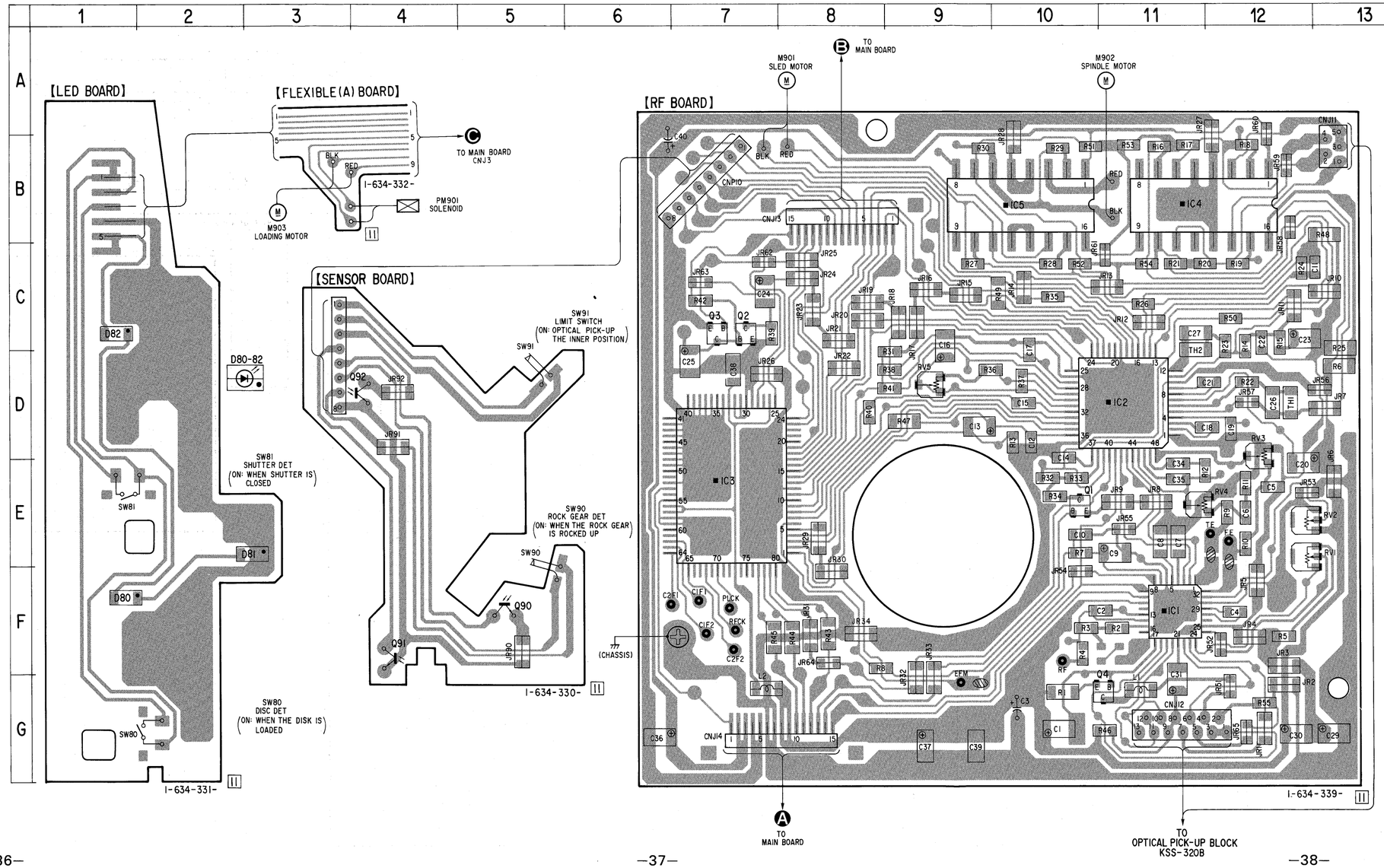
5-6. PRINTED WIRING BOARDS (MD Section)

- **Semiconductor Location**

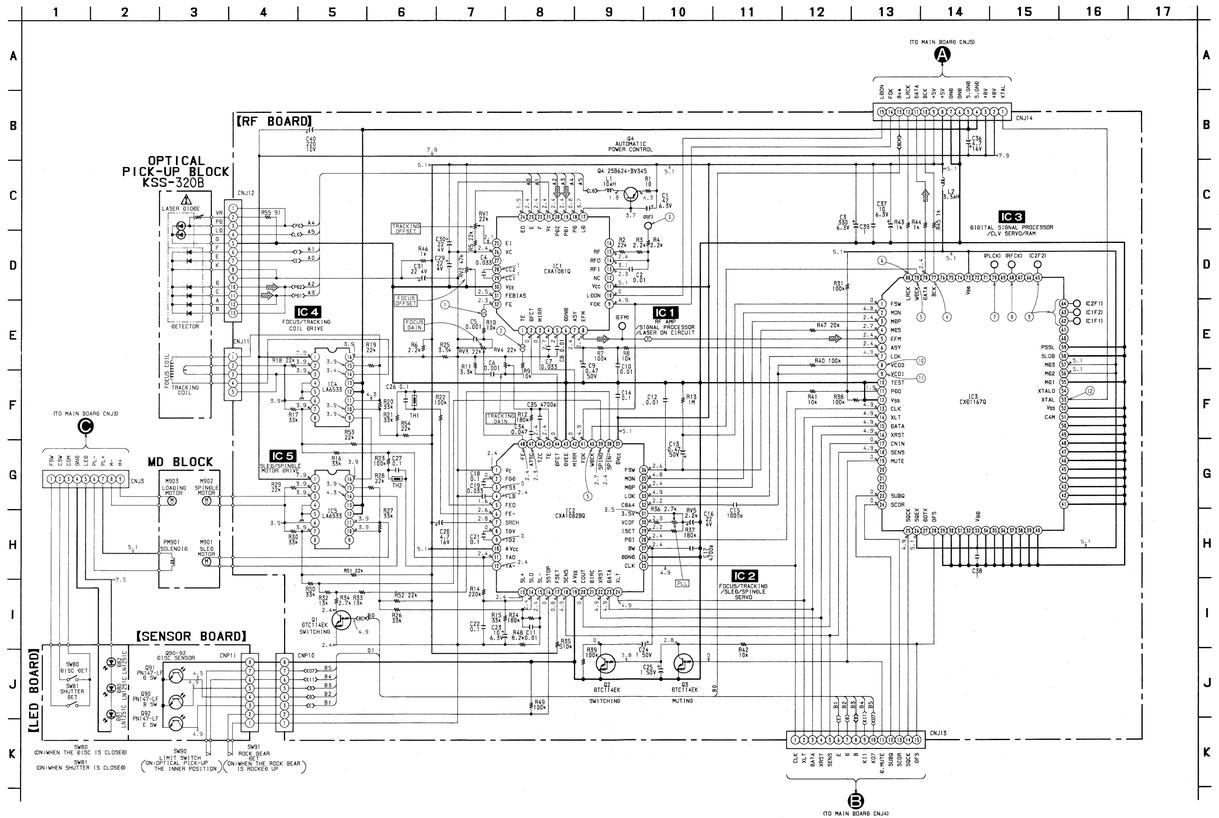
Ref. No.	Location
D80	F-1
D81	E-3
D82	C-1
IC1	F-11
IC2	D-11
IC3	E-7
IC4	B-11
IC5	B-10
Q1	E-10
Q2	C-7
Q3	C-7
Q4	G-10
Q90	F-5
Q91	F-4
Q92	D-4

Note:

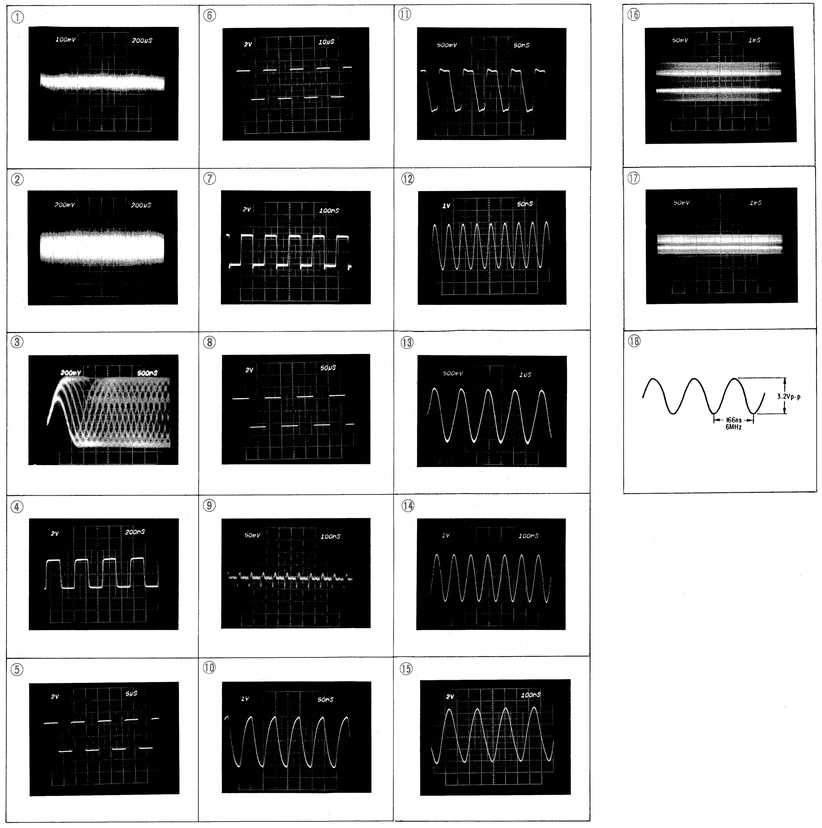
- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G
【LED BOARD】
【FLEXIBLE(A) BOARD】
【SENSOR BOARD】
【RF BOARD】
TO MAIN BOARD CNJ3
M903 LOADING MOTOR
PM901 SOLENOID
1-634-332-
M901 SLED MOTOR
M902 SPINDLE MOTOR
TO MAIN BOARD
SW91 LIMIT SWITCH (ON: OPTICAL PICK-UP THE INNER POSITION)
SW81 SHUTTER DET (ON: WHEN SHUTTER IS CLOSED)
SW90 ROCK GEAR DET (ON: WHEN THE ROCK GEAR IS ROCKED UP)
SW80 DISC DET (ON: WHEN THE DISK IS LOADED)
D80-82
(CHASSIS)
1-634-330-
1-634-331-
1-634-339-
TO MAIN BOARD
TO OPTICAL PICK-UP BLOCK KSS-320B

5-7. SCHEMATIC DIAGRAM (MD Section)



WAVEFORMS



MD Section

Note:

- **All capacitors are in µF unless otherwise noted. pF: µF 50 WV or less are not indicated except for electrolytics and tantalums.**
- **All resistors are in Ω and 1/10 W or less unless otherwise specified.**
- ▭▭▭▭ : B + Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Circled numbers refer to waveforms.
- Signal path.
  ▻▻ : CD

5-8. PRINTED WIRING BOARDS (MAIN Section)

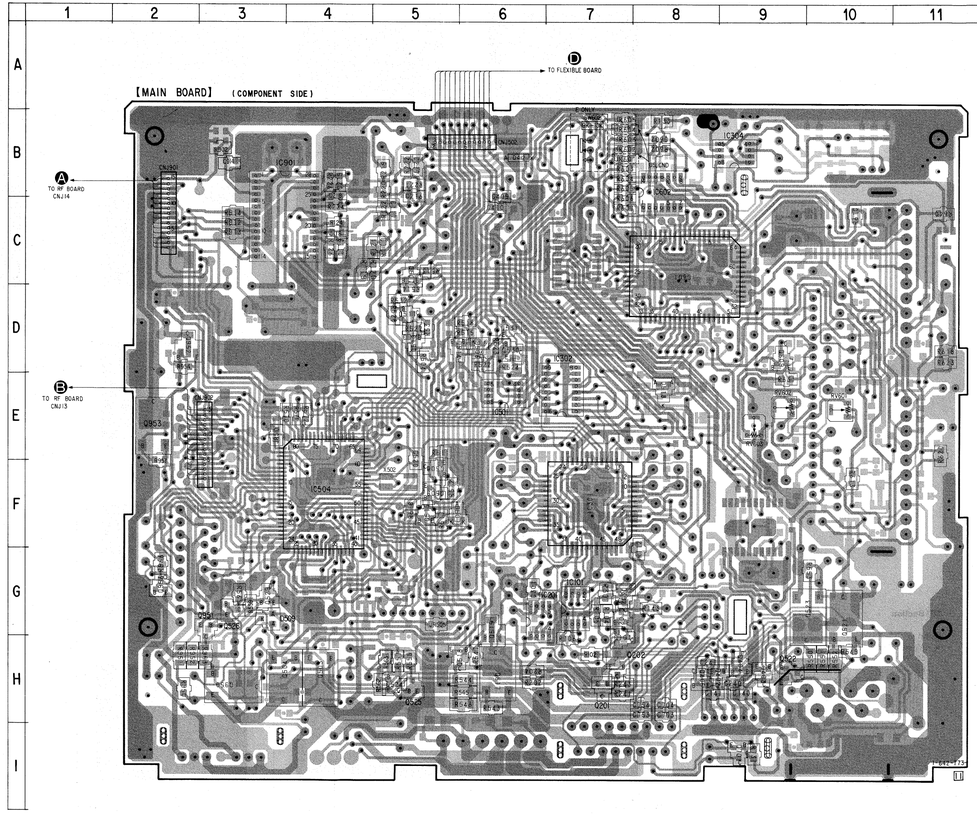
• See page 51 for Semiconductor Lead Layouts.

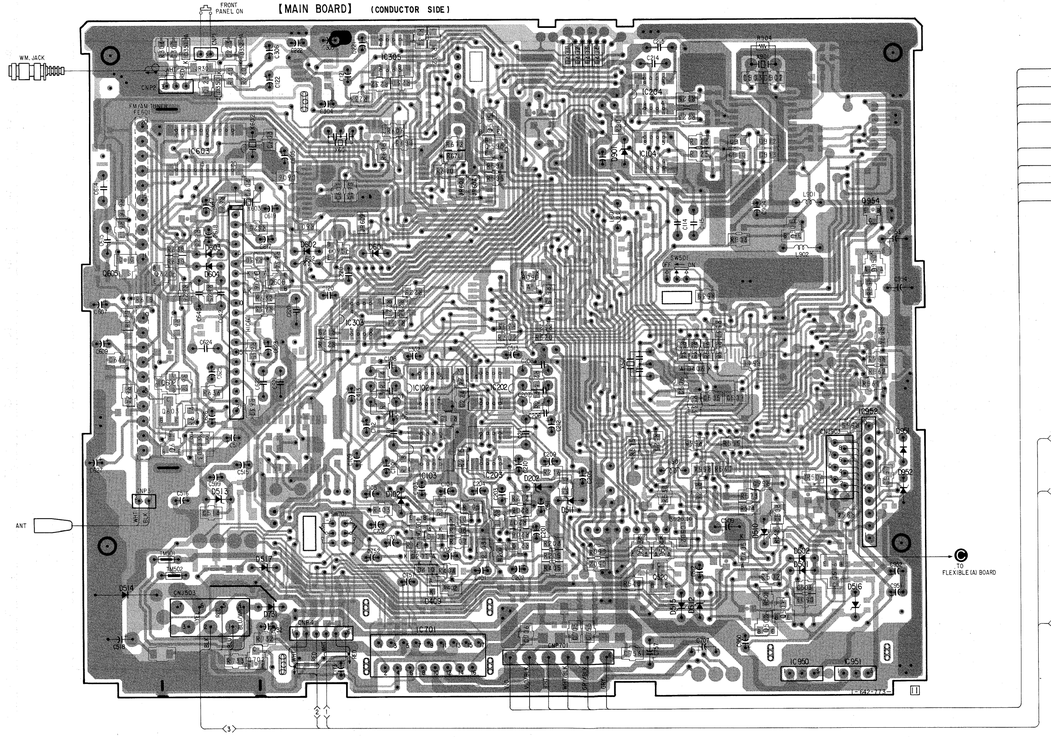
• Semiconductor Location

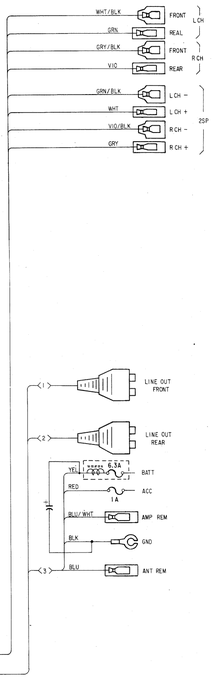
Ref. No.	Location	Ref. No.	Location
D101	G-17	IC701	H-17
D102	G-16	IC901	B-3
D201	G-17	IC950	I-21
D202	F-18	IC951	I-22
D350	B-14	IC952	F-22
D351	B-14		
D352	B-15	Q101	G-7
D405	G-20	Q102	G-7
D406	E-20	Q201	H-7
D409	H-17	Q202	H-7
D410	G-17	Q301	G-17
D412	B-6	Q302	G-7
D501	G-21	Q402	H-8
D502	G-21	Q403	H-9
D503	G-19	Q404	H-9
D504	G-19	Q405	H-8
D506	D-6	Q501	H-21
D507	F-5	Q502	H-21
D508	D-18	Q503	H-4
D509	G-3	Q504	H-4
D510	G-20	Q505	B-17
D511	G-18	Q507	I-5
D512	H-20	Q508	E-5
D513	G-14	Q509	F-5
D514	H-13	Q510	D-5
D515	H-20	Q511	D-5
D516	H-22	Q514	D-5
D517	G-15	Q515	F-5
D518	D-8	Q516	G-21
D601	D-16	Q517	H-6
D602	D-15	Q518	H-6
D603	D-14	Q519	G-6
D604	D-14	Q520	H-19
D606	D-15	Q521	G-10
D731	H-15	Q522	H-9
D901	C-19	Q523	G-10
D950	D-22	Q524	H-5
D951	F-22	Q525	H-5
D952	F-22	Q526	G-3
		Q529	G-3
IC101	G-7	Q530	D-6
IC102	E-17	Q531	D-6
IC103	F-17	Q598	C-17
IC104	C-19	Q601	D-16
IC201	G-6	Q602	E-14
IC202	E-17	Q603	F-14
IC203	F-17	Q605	D-13
IC204	B-19	Q608	D-15
IC301	F-17	Q609	D-9
IC302	D-7	Q611	F-14
IC303	E-16	Q620	D-14
IC304	B-9	Q701	I-9
IC305	B-16	Q702	H-15
IC501	E-6	Q901	D-21
IC502	G-20	Q950	H-3
IC503	F-14	Q951	G-3
IC504	F-4	Q952	D-2
IC601	C-8	Q953	E-2
IC602	B-8	Q954	D-22
IC603	C-14	Q956	G-2

Note:

- ○——: parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒▒▒: Pattern on the side which is seen.
- ▒▒▒: Pattern of the rear side.







5-9. SCHEMATIC DIAGRAM (MAIN Section)

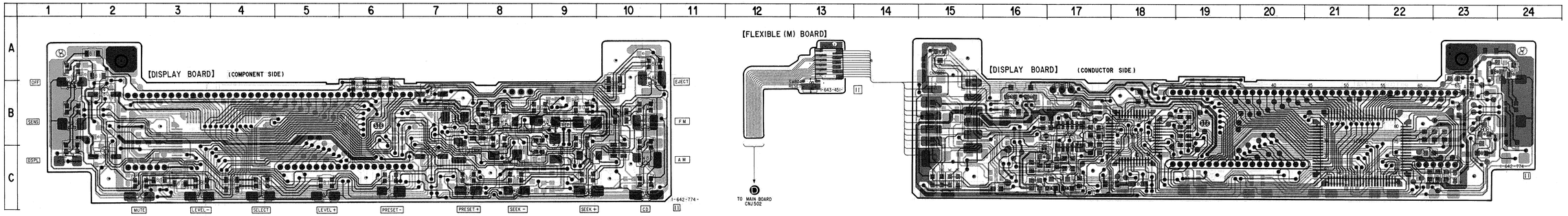
- See page 41 for Waveforms and page 31 for IC Block Diagrams.

	*3	*4
US, CND	0.033	20K
E	0.022	33K

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10 W or less unless otherwise specified.
- △ : internal component.
- ▭ : B + Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM or COMMON
  ( ) : CD
  《 》: AM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to wavefroms.
- Signal path.
  ⇨ : FM
  ⇨ : CD
  ⇨ : AUX
- Abbreviations
  US : USA Model
  CND : Canadian Model
  E : E Model

• See page 41 for Waveforms and page 28 for IC Block Diagrams.



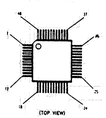
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D801	A-10	D836	C-15
D802	B-10	D837	C-15
D803	C-10	D838	C-16
D804	C-10	D839	B-17
D805	B-9	D840	B-19
D806	B-9	D841	B-19
D807	C-9	D842	B-19
D808	B-9	D843	C-19
D809	C-9	D844	C-23
D810	B-8	D846	B-23
D811	B-8		
D812	C-8	IC801	B-17
D813	C-7	IC802	B-18
D814	C-6	IC803	B-21
D815	B-6		
D816	B-6	Q801	C-17
D817	C-5	Q802	C-17
D818	C-4	Q803	C-16
D819	C-3	Q804	A-15
D820	C-2	Q805	B-17
D821	C-1	Q806	B-16
D822	B-1	Q807	B-16
D823	A-1	Q808	B-23
D833	B-16	Q809	C-23
D834	C-15	Q810	A-24
D835	C-15	Q811	A-24

• Semiconductor Lead Layouts

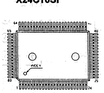
LB1645N

LC7537AN



CXA1081Q

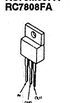
CXD1167Q
TC9240F
μPD75116GF-F14-3BE
μPD75118GF-022-3B9
X24C16SI



LC7216M

SM5840CS

RC78M05FA
RC7808FA



CL-155Y/PG-CD

DSA3A4

LN1251C

DTZ3.9B
MA8051-H
MA8062-M
1SS355

RD3.9M-B2
RD5.6M-B2
RD11M-B2

RD4.3ES-B2
RD5.1ES-B2
RD5.6ES-B2
RD6.2ES-L3
RD7.5ES-B1
RD9.1ES-B2
RD11ES-B2
RD16ES-B3
1SS119
11ES2

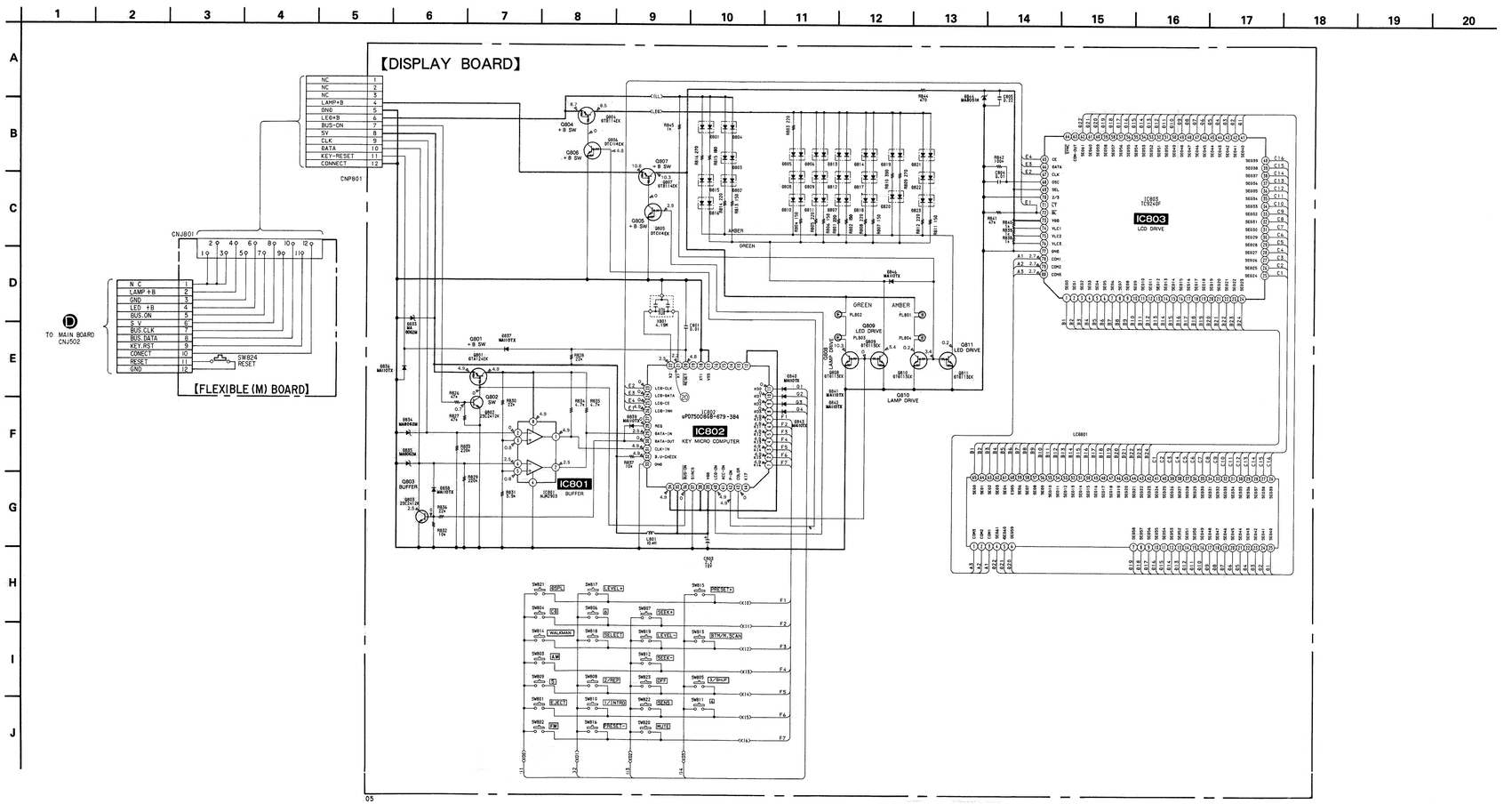
1SS226

Note on Printed Wiring Board:

- ● : Through hole.
- ○—○ 777 : Jumper wire connected to the ground pattern on the component side.
- ▒▒▒ : Pattern on the side which is seen.
- ▒▒▒ : Pattern of the rear side.

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10 W or less unless otherwise specified.
- ——— : B + Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from battery, accessory terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Circled numbers refer to wavefroms.



SECTION 6
EXPLODED VIEWS

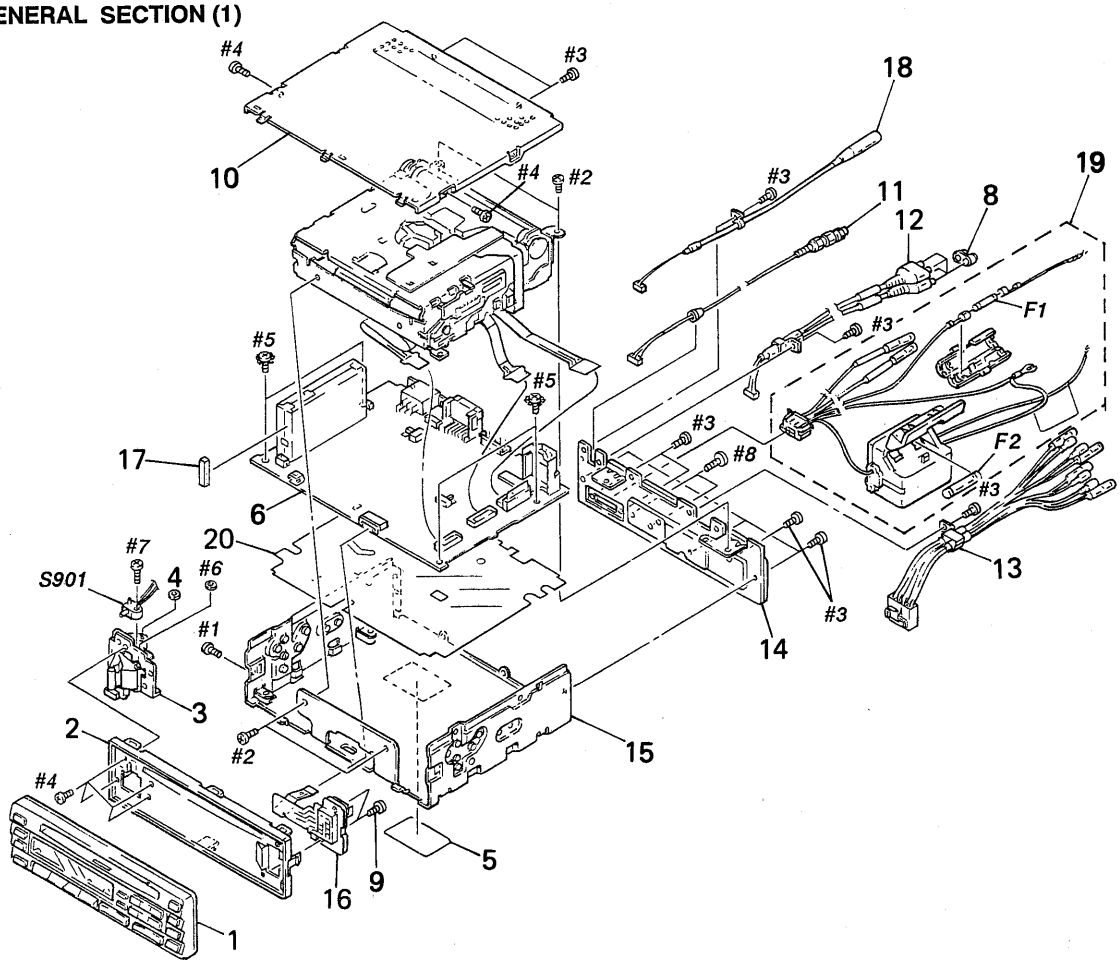
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

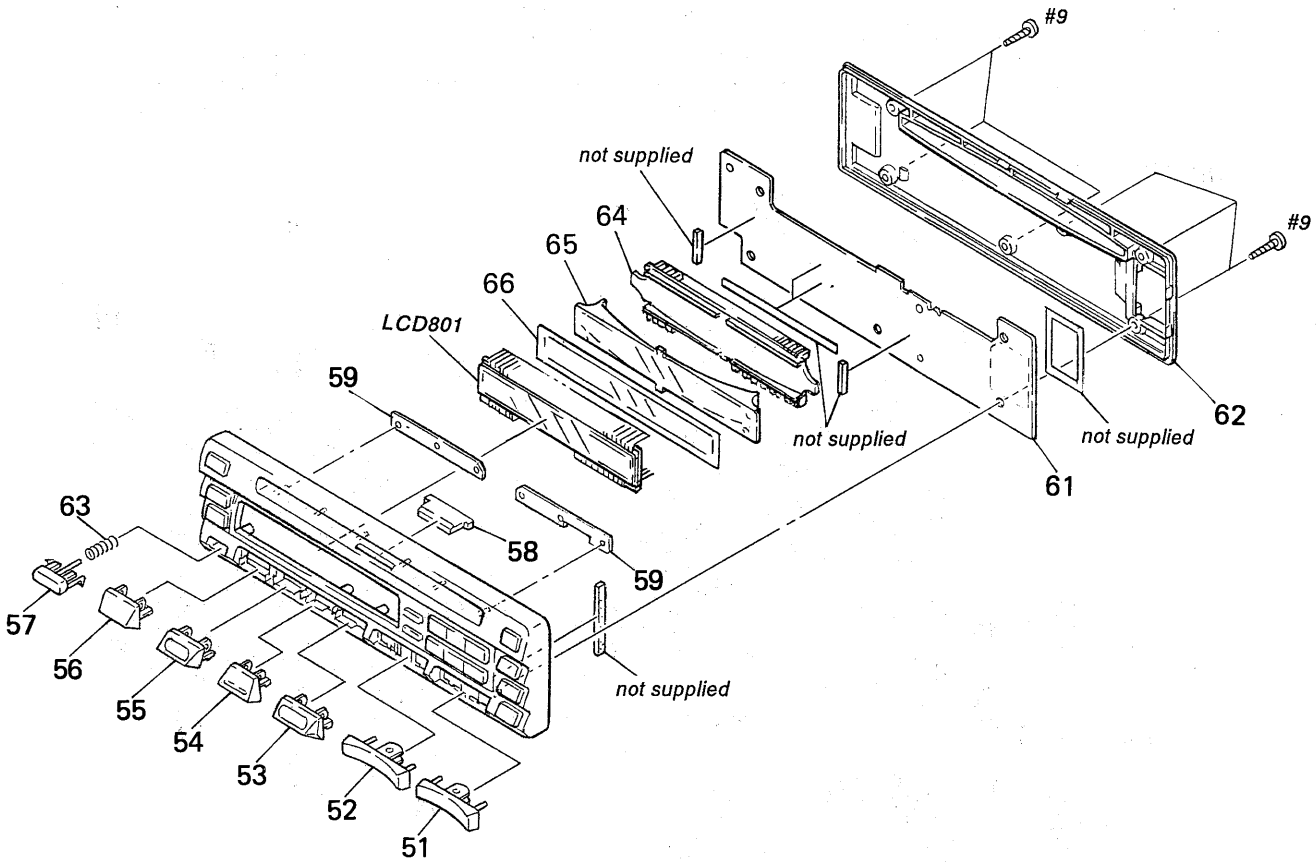
- Abbreviations
  US : USA Model
  CND: Canadian Model
  E : E Model

(1) GENERAL SECTION (1)



Ref. No.	Part No.	Description	Remark
1	X-3364-557-1	PANEL ASSY, FRONT	
* 2	X-3364-611-1	PANEL (SUB) ASSY	
3	X-3364-564-1	LOCK ASSY	
4	3-701-436-11	WASHER, STOPPER	
* 5	3-376-302-01	LABEL, MODEL NUMBER (US)	
* 5	3-376-303-01	LABEL, MODEL NUMBER (CND)	
* 5	3-376-304-01	LABEL, MODEL NUMBER (E)	
* 6	A-3273-787-A	MAIN BOARD, COMPLETE (USA, CND)	
* 6	A-3273-850-A	MAIN BOARD (B), COMPLETE (E)	
8	3-339-410-01	COVER (2), PIN JACK	
9	4-947-204-11	SCREW TP M2X4	
* 10	3-375-799-01	COVER	
11	1-690-485-11	CORD (WITH CONNECTOR)	
12	1-690-754-11	CORD (WITH CONNECTOR) (RCA)	
12	1-690-754-21	CORD (WITH CONNECTOR) (RCA)	
13	1-690-722-11	CORD (WITH CONNECTOR) (SP)	
* 14	X-3364-562-1	PANEL ASSY, BACK	
* 15	3-374-172-01	CHASSIS (MAIN)	
16	1-643-451-11	(M) FLEXIBLE BOARD	
17	9-911-845-XX	SPONGE	
18	1-574-339-11	CORD (WITH CONNECTOR)	
19	1-690-720-11	CORD (WITH CONNECTOR)	
20	3-379-285-01	SHEET, INSULATING	
S901	1-570-771-11	SWITCH	
⚠F1	1-532-414-11	FUSE (1A 125V)	
⚠F2	1-532-422-11	FUSE (6.3A 125V)	

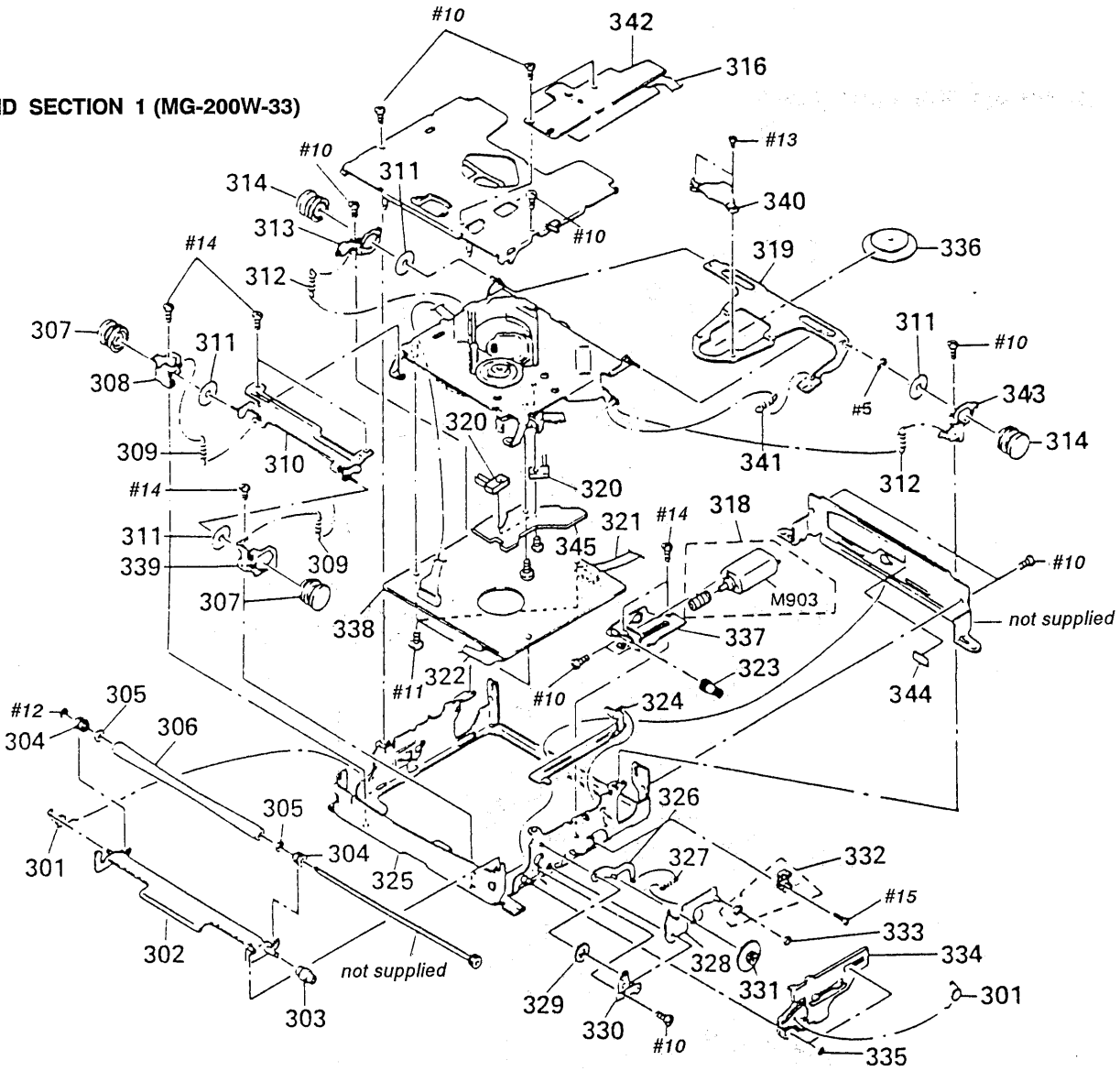
(2) GENERAL SECTION (2)



Ref. No.	Part No.	Description	Remark
51	3-375-804-01	BUTTON (SEEK)	
52	3-375-803-01	BUTTON (PRESET)	
53	3-375-809-01	BUTTON (LEVEL +)	
54	3-375-807-01	BUTTON (SELECT)	
55	3-375-806-01	BUTTON (LEVEL -)	
56	3-375-805-01	BUTTON (MUTE)	
57	3-375-810-01	BUTTON (RELEASE)	
58	3-375-817-01	PLATE (C), LIGHT GUIDE	
59	3-376-824-01	SHEET (DOOR F)	

Ref. No.	Part No.	Description	Remark
* 61	A-3222-369-A	DISPLAY BOARD, COMPLETE	
* 62	3-375-797-01	PANEL, FRONT BACK	
63	9-910-999-31	SPRING, COMPRESSION	
* 64	3-375-815-01	HOLDER (LCD)	
* 65	3-375-816-01	PLATE (LCD), LIGHT GUIDE	
66	3-379-284-01	SHEET (DIFFUSION)	
LCD801	1-809-561-21	DISPLAY PANEL, LIQUID CRYSTAL	

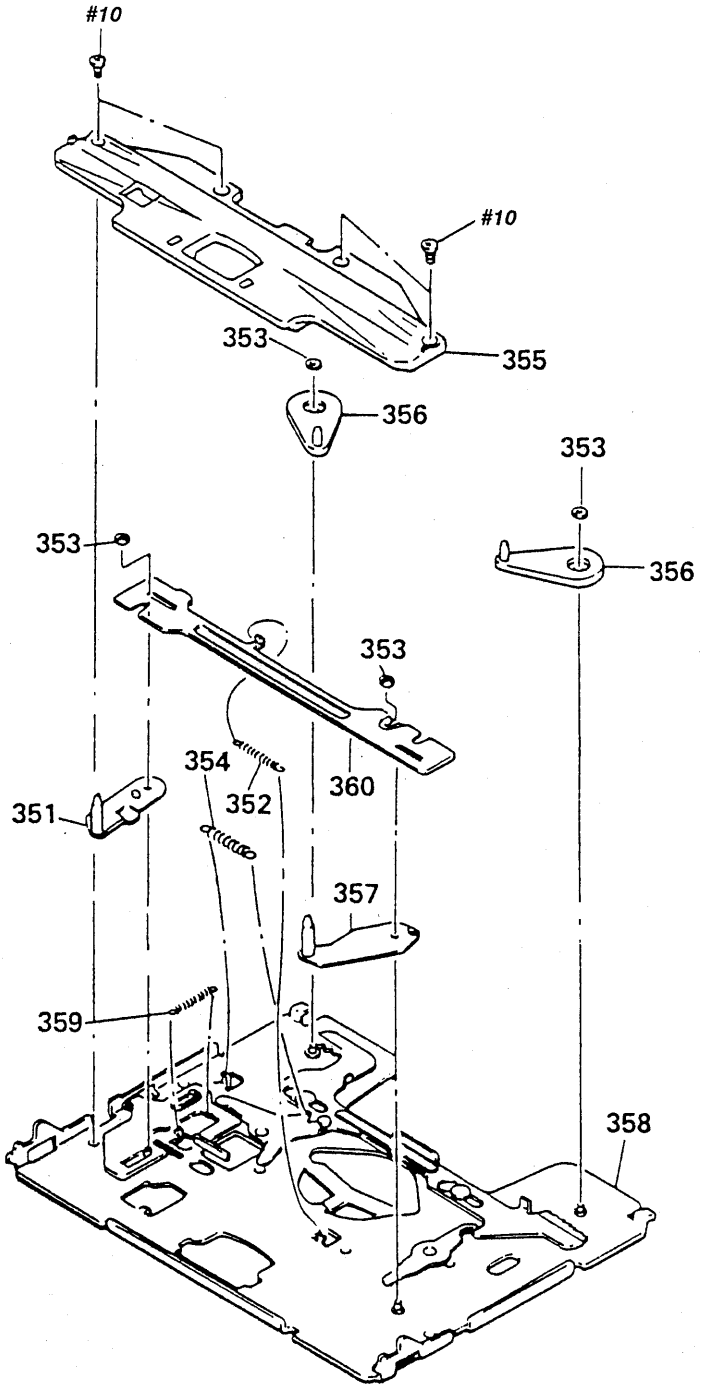
(3) MD SECTION 1 (MG-200W-33)



Ref. No.	Part No.	Description	Remark
301	3-351-437-01	SPRING (ROLLER)	
* 302	X-3351-422-1	BRACKET (ROLLER) ASSY	
303	3-351-495-01	SLEEVE (2)	
304	3-351-416-01	BEARING (ROLLER SHAFT)	
305	3-701-438-11	WASHER, 2.5	
306	3-323-231-11	ROLLER (LOWER)	
307	3-364-310-01	DAMPER (F)	
* 308	3-351-493-01	BRACKET (DUMPER B)	
309	3-351-444-01	SPRING (FLOATING A, B), TENSION	
* 310	X-3351-423-1	BRACKET (F) ASSY	
311	3-323-263-01	WASHER, TEFLON	
312	3-351-445-01	SPRING (FLOATING C, D), TENSION	
* 313	3-351-411-01	BRACKET (DAMPER D)	
314	3-330-929-11	DAMPER (S), HYPER	
316	1-634-332-11	(A) FLEXIBLE BOARD	
318	A-3249-535-A	GEAR (A) ASSY	
* 319	3-351-453-01	ARM, CHUCKING	
320	1-554-938-11	SWITCH, LEAF	
321	1-634-333-11	(B) FLEXIBLE BOARD	
322	1-634-334-11	(C) FLEXIBLE BOARD	
323	3-351-498-01	GEAR (B, WORM WHEEL)	
* 324	X-3351-418-1	LEVER (CH RELEASE) ASSY	

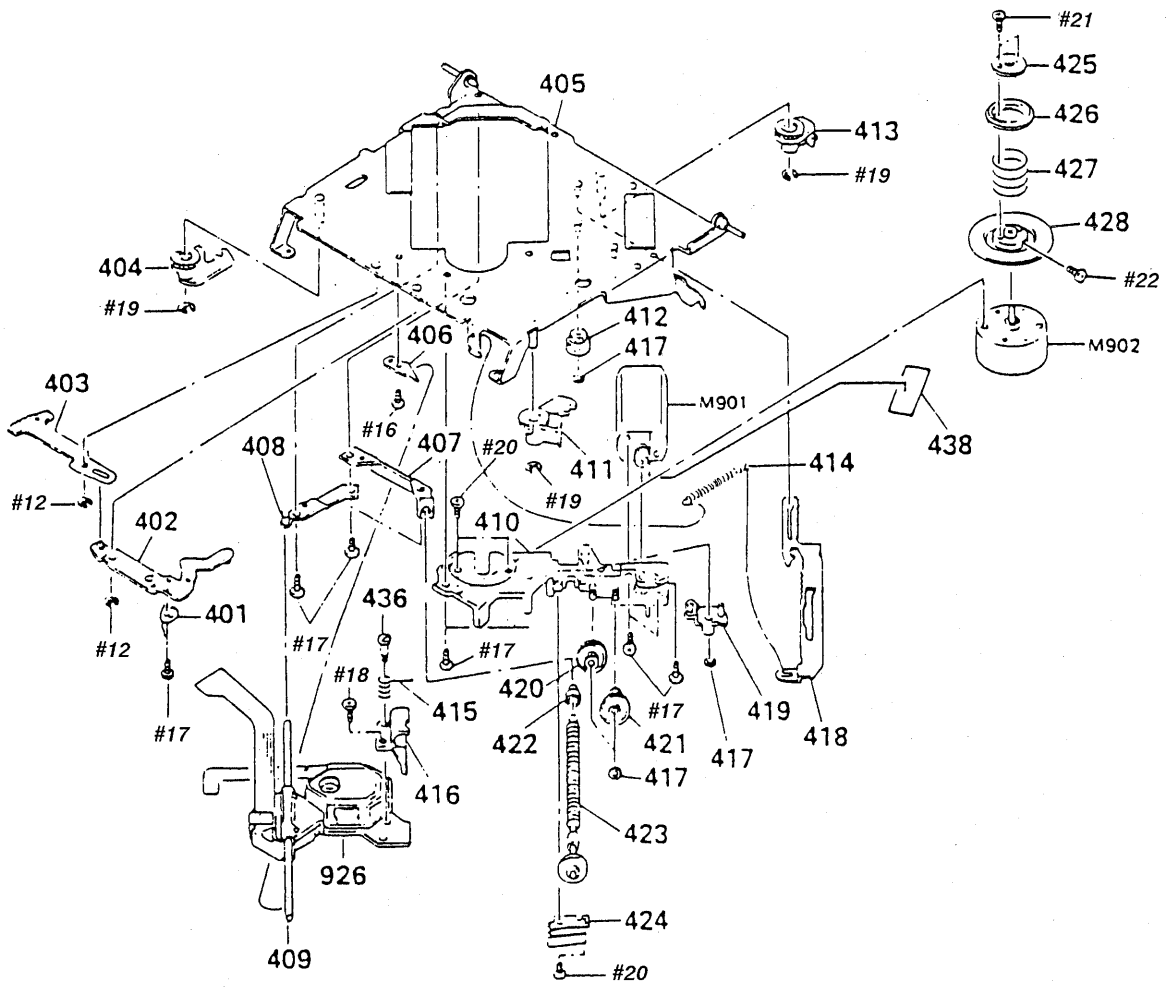
Ref. No.	Part No.	Description	Remark
* 325	X-3351-417-2	CHASSIS (MAIN) ASSY	
* 326	X-3351-420-1	LEVER (GEAR C) ASSY	
327	3-351-463-01	SPRING (SW LEVER 2), TENSION	
* 328	X-3351-421-1	LEVER (SW) ASSY	
329	3-351-414-01	GEAR (C)	
* 330	3-351-482-01	RETAINER (SIDE GEAR 2)	
331	3-351-438-01	GEAR, CAM	
332	1-454-461-11	SOLENOID, PLUNGER	
333	3-315-384-11	WASHER, STOPPER	
334	3-351-456-01	LEVER (L, E)	
335	3-578-224-00	WASHER	
336	3-348-558-01	PLATE (F), CHUCK	
* 337	X-3351-419-1	BRACKET (M) ASSY	
* 338	A-3279-978-A	RF BOARD, COMPLETE	
* 339	3-351-492-01	BRACKET (DUMPER A)	
340	3-342-625-01	RETAINER (S2), THRUST	
341	3-351-443-01	SPRING (CHUCKING), TENSION	
* 342	1-634-331-11	LED BOARD	
* 343	3-351-494-01	BRACKET (DUMPER C)	
* 344	3-351-464-01	SHEET (SM), INSULATING	
* 345	1-634-330-11	SENSOR BOARD	
M903	1-541-560-11	MOTOR, DC	

(4) MD SECTION 2 (MG-200W-33)



Ref. No.	Part No.	Description	Remark
* 351	X-3351-426-1	LEVER (D DETECTION R2) ASSY	
352	3-351-447-02	SPRING (JOINT F), TENSION	
353	3-578-224-00	WASHER	
354	3-351-446-01	SPRING (JOINT R), TENSION	
355	3-351-496-01	GUIDE (DISK 2)	
356	3-351-432-01	GEAR (DS)	
* 357	X-3351-425-1	LEVER (D DETECTION L2) ASSY	
* 358	X-3351-424-1	CHASSIS (T2) ASSY	
359	3-351-448-01	SPRING (LOCK LEVER), TENSION	
* 360	3-351-489-02	JOINT (F2)	

(5) MD SECTION 3 (MG-200W-33)



Ref. No.	Part No.	Description	Remark
* 401	2-643-407-01	PLATE, SWITCH	
* 402	X-2641-534-1	LEVER (A) ASSY, LOCK	
* 403	2-641-582-01	LEVER (B), LOCK	
404	2-643-414-02	GEAR (B), LOCK	
* 405	X-2641-536-2	CHASSIS ASSY, MAIN	
406	2-643-402-01	RETAINER (B), SHAFT	
407	2-643-403-01	RETAINER, FEED SCREW	
408	2-643-401-01	RETAINER (A), SHAFT	
409	2-640-632-01	SHAFT, GUIDE	
* 410	X-2641-535-2	CHASSIS ASSY, SUB	
411	2-643-413-02	GEAR (A), LOCK	
412	2-643-405-01	WHEEL, WORM	
413	2-641-599-02	GEAR (C), GEAR	
414	2-641-595-02	SPRING, TENSION	
415	2-643-420-01	SPRING	
416	2-643-412-02	NUT, FEED	
417	3-321-813-01	WASHER, COTTER POLYETHYLENE	

Ref. No.	Part No.	Description	Remark
* 418	2-641-583-02	LEVER (C), LOCK	
419	2-643-406-02	LEVER, SELECTION	
420	2-643-410-01	GEAR (E)	
421	2-643-409-01	GEAR (D)	
422	2-643-408-02	RETAINER, THRUST	
423	A-4910-184-B	SCREW ASSY, FEED	
424	2-643-404-01	SPRING	
425	2-640-650-01	STOPPER, RING	
426	2-643-418-01	RING, CENTER	
427	2-640-617-02	SPRING, COMPRESSION	
428	X-2641-541-1	TURNTABLE ASSY	
436	2-643-423-01	SCREW, SP	
438	3-351-469-01	SHEET, MOTOR	
⚠926	8-848-224-11	DEVICE. OPTICAL KSS-320B	
M901	A-4910-183-A	MOTOR ASSY, SL (SLED)	
M902	1-541-448-41	MOTOR (SPINDLE)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

FLEXIBLE DISPLAY

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Abbreviations
  US : USA Model
  CND: Canadian Model
  E : E Model

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	1-643-451-11	(M) FLEXIBLE BOARD			
		**********			
		< JACK >			
CNJ801	1-691-558-21	SOCKET, CONNECTOR 12P			
		< SWITCH >			
SW824	1-554-371-51	SWITCH, TACT			
**********					
*	A-3222-369-A	DISPLAY BOARD, COMPLETE			
		**********			
*	3-375-815-01	HOLDER (LCD)			
*	3-375-816-01	PLATE (LCD), LIGHT GUIDE			
		< CAPACITOR >			
C801	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C803	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C804	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C805	1-164-222-11	CERAMIC CHIP	0.22uF		25V
		< CONNECTOR >			
* CNP801	1-691-557-11	PIN, CONNECTOR 12P			
		< DIODE >			
D801	8-719-987-45	DIODE	CL-155Y/PG-CD		
D802	8-719-987-45	DIODE	CL-155Y/PG-CD		
D803	8-719-987-45	DIODE	CL-155Y/PG-CD		
D804	8-719-987-45	DIODE	CL-155Y/PG-CD		
D805	8-719-987-45	DIODE	CL-155Y/PG-CD		
D806	8-719-987-45	DIODE	CL-155Y/PG-CD		
D807	8-719-987-45	DIODE	CL-155Y/PG-CD		
D808	8-719-987-45	DIODE	CL-155Y/PG-CD		
D809	8-719-987-45	DIODE	CL-155Y/PG-CD		
D810	8-719-987-45	DIODE	CL-155Y/PG-CD		
D811	8-719-987-45	DIODE	CL-155Y/PG-CD		
D812	8-719-987-45	DIODE	CL-155Y/PG-CD		
D813	8-719-987-45	DIODE	CL-155Y/PG-CD		
D814	8-719-987-45	DIODE	CL-155Y/PG-CD		
D815	8-719-987-45	DIODE	CL-155Y/PG-CD		
D816	8-719-987-45	DIODE	CL-155Y/PG-CD		
D817	8-719-987-45	DIODE	CL-155Y/PG-CD		
D818	8-719-987-45	DIODE	CL-155Y/PG-CD		
D819	8-719-987-45	DIODE	CL-155Y/PG-CD		
D820	8-719-987-45	DIODE	CL-155Y/PG-CD		
D821	8-719-987-45	DIODE	CL-155Y/PG-CD		
D822	8-719-987-45	DIODE	CL-155Y/PG-CD		
D823	8-719-987-45	DIODE	CL-155Y/PG-CD		
D833	8-719-422-65	DIODE	MA8062M		
D834	8-719-422-65	DIODE	MA8062M		
D835	8-719-422-65	DIODE	MA8062M		
D836	8-719-404-47	DIODE	MA110-TX		
D837	8-719-404-47	DIODE	MA110-TX		
D838	8-719-404-47	DIODE	MA110-TX		
D839	8-719-404-47	DIODE	MA110-TX		
D840	8-719-404-47	DIODE	MA110-TX		
D841	8-719-404-47	DIODE	MA110-TX		
D842	8-719-404-47	DIODE	MA110-TX		
D843	8-719-404-47	DIODE	MA110-TX		
D844	8-719-422-43	DIODE	MA8051H		
D846	8-719-404-47	DIODE	MA110-TX		
		< IC >			
IC801	8-759-981-65	IC	LM2903M		
IC802	8-759-067-68	IC	uPD75008GB-679-3B4		
IC803	8-759-246-16	IC	TC9240F		
		< COIL >			
L801	1-410-204-31	INDUCTOR CHIP	10uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-809-561-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL801	1-518-677-21	LAMP, PILOT			
PL802	1-518-701-21	LAMP, PILOT			
PL803	1-518-701-21	LAMP, PILOT			
PL804	1-518-677-21	LAMP, PILOT			
		< TRANSISTOR >			
Q801	8-729-901-05	TRANSISTOR	DTA124EK		
Q802	8-729-920-74	TRANSISTOR	2SC2412K-QR		
Q805	8-729-900-53	TRANSISTOR	DTC114EK		
Q806	8-729-900-53	TRANSISTOR	DTC114EK		

Ref. No.	Part No.	Description			Remark
Q809	8-729-904-66	TRANSISTOR	DTD113EK		
Q810	8-729-904-66	TRANSISTOR	DTD113EK		
Q811	8-729-904-66	TRANSISTOR	DTD113EK		
		< RESISTOR >			
R801	1-216-182-00	METAL GLAZE	220	5%	1/8W
R802	1-216-178-00	METAL GLAZE	150	5%	1/8W
R803	1-216-182-00	METAL CHIP	220	5%	1/8W
R804	1-216-178-00	METAL GLAZE	150	5%	1/8W
R805	1-216-182-00	METAL GLAZE	220	5%	1/8W
R806	1-216-178-00	METAL GLAZE	150	5%	1/8W
R807	1-216-178-00	METAL GLAZE	150	5%	1/8W
R808	1-216-182-00	METAL GLAZE	220	5%	1/8W
R809	1-216-184-00	METAL GLAZE	270	5%	1/8W
R810	1-216-188-00	METAL GLAZE	390	5%	1/8W
R811	1-216-178-00	METAL GLAZE	150	5%	1/8W
R812	1-216-182-00	METAL GLAZE	220	5%	1/8W
R813	1-216-178-00	METAL GLAZE	150	5%	1/8W
R814	1-216-182-00	METAL GLAZE	220	5%	1/8W
R815	1-216-180-00	METAL GLAZE	180	5%	1/8W
R816	1-216-184-00	METAL GLAZE	270	5%	1/8W
R826	1-216-089-00	METAL CHIP	47K	5%	1/10W
R827	1-216-089-00	METAL CHIP	47K	5%	1/10W
R828	1-216-081-00	METAL CHIP	22K	5%	1/10W
R829	1-216-105-00	METAL CHIP	220K	5%	1/10W
R830	1-216-081-00	METAL CHIP	22K	5%	1/10W
R831	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R832	1-216-073-00	METAL CHIP	10K	5%	1/10W
R833	1-216-105-00	METAL CHIP	220K	5%	1/10W
R834	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R835	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R836	1-216-081-00	METAL CHIP	22K	5%	1/10W
R837	1-216-073-00	METAL CHIP	10K	5%	1/10W
R838	1-216-049-00	METAL CHIP	1K	5%	1/10W
R839	1-216-049-00	METAL CHIP	1K	5%	1/10W
R840	1-216-049-00	METAL CHIP	1K	5%	1/10W
R841	1-216-089-00	METAL CHIP	47K	5%	1/10W
R842	1-216-097-00	METAL CHIP	100K	5%	1/10W
R844	1-216-041-00	METAL CHIP	470	5%	1/10W
R845	1-216-049-00	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S801	1-692-037-11	SWITCH, KEY BOARD (⏏)			
S802	1-692-037-11	SWITCH, KEY BOARD (FM)			
S803	1-692-037-11	SWITCH, KEY BOARD (AM)			
S804	1-692-037-11	SWITCH, KEY BOARD (CD)			
S805	1-692-037-11	SWITCH, KEY BOARD (3/SHUF)			
S806	1-692-037-11	SWITCH, KEY BOARD (6)			
S807	1-692-037-11	SWITCH, KEY BOARD (SEEK +)			
S808	1-692-037-11	SWITCH, KEY BOARD (2/REP)			
S809	1-692-037-11	SWITCH, KEY BOARD (5)			
S810	1-692-037-11	SWITCH, KEY BOARD (1/INTRO)			
S811	1-692-037-11	SWITCH, KEY BOARD (4)			
S812	1-692-037-11	SWITCH, KEY BOARD (SEEK -)			
S813	1-692-037-11	SWITCH, KEY BOARD (BTM/M.SCAN)			
S814	1-692-037-11	SWITCH, KEY BOARD (WALKMAN)			
S815	1-692-037-11	SWITCH, KEY BOARD (PRESET +)			
S816	1-692-037-11	SWITCH, KEY BOARD (PRESET -)			
S817	1-692-037-11	SWITCH, KEY BOARD (LEVEL +)			
S818	1-692-037-11	SWITCH, KEY BOARD (SEL)			
S819	1-692-037-11	SWITCH, KEY BOARD (LEVEL -)			
S820	1-692-037-11	SWITCH, KEY BOARD (MUTE)			
S821	1-692-037-11	SWITCH, KEY BOARD (DSPL)			
S822	1-692-037-11	SWITCH, KEY BOARD (LOUD/SENS)			
S823	1-692-037-11	SWITCH, KEY BOARD (OFF)			
		< VIBRATOR >			
X801	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)			
**********					
*	1-634-331-11	LED BOARD			
		**********			
	1-634-332-11	(A) FLEXIBLE BOARD			
*	3-355-252-01	SHEET (MD), INSULATING			
		< DIODE >			
D80	8-719-404-19	DIODE	LN1251C		
D81	8-719-404-19	DIODE	LN1251C		
D82	8-719-404-19	DIODE	LN1251C		
		< SWITCH >			
SW80	1-571-754-11	SWITCH, PUSH (1 KEY)			
SW81	1-571-754-11	SWITCH, PUSH (1 KEY)			
**********					

MAIN

Ref. No.	Part No.	Description			Remark
*	A-3273-787-A	MAIN BOARD, COMPLETE(US, CND)			
		**********			
*	A-3273-850-A	MAIN BOARD (B), COMPLETE(E)			
		**********			
		< CAPACITOR >			
C101	1-126-157-11	ELECT	10uF	20%	16V
C102	1-126-157-11	ELECT	10uF	20%	16V
C103	1-126-301-11	ELECT	1uF	20%	50V
C104	1-126-301-11	ELECT	1uF	20%	50V
C105	1-124-584-00	ELECT	100uF	20%	10V
C106	1-136-162-00	FILM	0.056uF	5%	50V
C107	1-136-162-00	FILM	0.056uF	5%	50V
C108	1-130-476-00	MYLAR	0.0027uF	5%	50V
C109	1-124-589-11	ELECT	47uF	20%	16V
C110	1-124-464-11	ELECT	0.22uF	20%	50V
C111	1-130-477-00	MYLAR	0.0033uF	5%	50V
C112	1-124-589-11	ELECT	47uF	20%	16V
C114	1-130-480-00	MYLAR	0.0056uF	5%	50V
C115	1-130-473-00	MYLAR	0.0015uF	5%	50V
C116	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C117	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C118	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C119	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C120	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C121	1-126-579-00	ELECT	0.47uF	20%	50V
C122	1-126-288-11	ELECT	4.7uF	20%	16V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C141	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C201	1-126-157-11	ELECT	10uF	20%	16V
C202	1-126-157-11	ELECT	10uF	20%	16V
C203	1-126-301-11	ELECT	1uF	20%	50V
C204	1-126-301-11	ELECT	1uF	20%	50V
C205	1-124-584-00	ELECT	100uF	20%	10V
C206	1-136-162-00	FILM	0.056uF	5%	50V
C207	1-136-162-00	FILM	0.056uF	5%	50V
C208	1-130-476-00	MYLAR	0.0027uF	5%	50V
C209	1-124-589-11	ELECT	47uF	20%	16V
C210	1-124-464-11	ELECT	0.22uF	20%	50V
C211	1-130-477-00	MYLAR	0.0033uF	5%	50V
C212	1-124-589-11	ELECT	47uF	20%	16V
C214	1-130-480-00	MYLAR	0.0056uF	5%	50V
C215	1-130-473-00	MYLAR	0.0015uF	5%	50V
C216	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C217	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C218	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C219	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C220	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C221	1-126-579-61	ELECT	0.47uF	20%	50V
C222	1-126-288-11	ELECT	4.7uF	20%	16V
C223	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C224	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C240	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C241	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C301	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C302	1-124-589-11	ELECT	47uF	20%	16V
C303	1-124-589-11	ELECT	47uF	20%	16V
C304	1-126-157-11	ELECT	10uF	20%	16V
C305	1-126-157-11	ELECT	10uF	20%	16V
C306	1-128-054-11	ELECT	22uF	20%	10V
C307	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C409	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C410	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C413	1-126-579-61	ELECT	0.47uF	20%	50V
C501	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C506	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C507	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C509	1-125-559-11	CAP, DOUBLE LAYERS			0.047F
C510	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C511	1-126-157-11	ELECT	10uF	20%	16V
C512	1-126-157-11	ELECT	10uF	20%	16V
C513	1-126-157-11	ELECT	10uF	20%	16V
C514	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C515	1-126-157-11	ELECT	10uF	20%	16V
C516	1-126-564-00	ELECT	10uF	20%	16V
C517	1-124-230-00	ELECT	47uF	20%	10V
C518	1-126-936-11	ELECT	3300uF	20%	16V
C520	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C599	1-124-229-00	ELECT	33uF	20%	10V
C601	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C602	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C603	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C604	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C605	1-124-589-11	ELECT	47uF	20%	16V
C606	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C607	1-124-589-11	ELECT	47uF	20%	16V
C608	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C609	1-124-589-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description				Remark
C614	1-136-169-00	FILM	0.22uF	5%	50V	
C615	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C617	1-124-464-11	ELECT	0.22uF	20%	50V	
C618	1-126-301-11	ELECT	1uF	20%	50V	
C619	1-126-301-11	ELECT	1uF	20%	50V	
C620	1-136-153-00	FILM	0.01uF	5%	50V	
C621	1-163-157-00	FILM	0.022uF	5%	50V	
C622	1-130-474-00	MYLAR	0.0018uF	5%	50V	
C623	1-126-288-11	ELECT	4.7uF	20%	16V	
C624	1-130-477-00	MYLAR	0.0033uF	5%	50V	
C625	1-128-054-11	ELECT	22uF	20%	10V	
C626	1-126-288-11	ELECT	4.7uF	20%	16V	
C627	1-124-257-00	ELECT	2.2uF	20%	50V	
C642	1-163-157-00	FILM	0.022uF	5%	50V (E)	
C642	1-136-159-00	FILM	0.033uF	5%	50V (US, CND)	
C643	1-163-157-00	FILM	0.022uF	5%	50V (E)	
C643	1-136-159-00	FILM	0.033uF	5%	50V (US, CND)	
C645	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C646	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C701	1-126-301-11	ELECT	1uF	20%	50V	
C702	1-126-301-11	ELECT	1uF	20%	50V	
C703	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C704	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C705	1-163-009-00	CERAMIC CHIP	0.001uF	5%	50V	
C706	1-163-009-00	CERAMIC CHIP	0.001uF	5%	50V	
C707	1-124-360-00	ELECT	1000uF	20%	16V	
C731	1-126-925-00	ELECT	470uF	20%	10V	
C732	1-124-234-00	ELECT	22uF	20%	16V	
C751	1-126-301-11	ELECT	1uF	20%	50V	
C752	1-126-301-11	ELECT	1uF	20%	50V	
C753	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C754	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C755	1-163-009-00	CERAMIC CHIP	0.001uF	5%	50V	
C756	1-163-009-00	CERAMIC CHIP	0.001uF	5%	50V	
C757	1-124-360-00	ELECT	1000uF	20%	16V	
C901	1-126-154-11	ELECT	47uF	20%	6.3V	
C902	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C903	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C904	1-128-057-11	ELECT	330uF	20%	6.3V	
C914	1-163-106-00	CERAMIC CHIP	36PF	5%	50V	
C950	1-124-589-11	ELECT	47uF	20%	16V	
C951	1-126-157-11	ELECT	10uF	20%	16V	
C952	1-126-157-11	ELECT	10uF	20%	16V	
C953	1-126-916-11	ELECT	1000uF	20%	6.3V	
C954	1-124-360-00	ELECT	1000uF	20%	16V	
C957	1-164-232-11	CERAMIC CHIP	0.01uF		50V	

< JACK >

CNJ502	1-691-801-11	SOCKET, CONNECTOR 12P	
CNJ503	1-691-280-11	CONNECTOR	
CNJ901	1-566-531-11	CONNECTOR, FPC (ZIF) 15P	
CNJ902	1-566-531-11	CONNECTOR, FPC (ZIF) 15P	
* CNJ903	1-569-630-11	SOCKET, CONNECTOR 9P	

< CONNECTOR >

* CNP1	1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P	
* CNP2	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
* CNP3	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
* CNP4	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
* CNP701	1-564-243-00	PIN, CONNECTOR 6P	

< DIODE >

D101	8-719-976-88	DIODE	DTZ3.9B
D102	8-719-109-75	DIODE	RD4.3ES-B2
D201	8-719-976-88	DIODE	DTZ3.9B
D202	8-719-109-75	DIODE	RD4.3ES-B2
D350	8-719-423-32	DIODE	MA8120M
D351	8-719-423-32	DIODE	MA8120M
D352	8-719-423-32	DIODE	MA8120M
D401	8-719-422-65	DIODE	MA8062M
D402	8-719-422-65	DIODE	MA8062M
D403	8-719-422-65	DIODE	MA8062M
D404	8-719-422-65	DIODE	MA8062M
D405	8-719-422-65	DIODE	MA8062M
D406	8-719-422-65	DIODE	MA8062M
D409	8-719-978-10	DIODE	DTZ3.9B
D410	8-719-978-10	DIODE	DTZ3.9B
D412	8-719-422-65	DIODE	MA8062M
D501	8-719-110-31	DIODE	RD12ES-B2
D501	8-719-112-80	DIODE	RD12ES
D502	8-719-110-13	DIODE	RD9.1ES-B2
D503	8-719-105-91	DIODE	RD5.6M-B2
D504	8-719-105-91	DIODE	RD5.6M-B2
D506	8-719-400-18	DIODE	MA152WK
D507	8-719-400-18	DIODE	MA152WK
D508	8-719-400-18	DIODE	MA152WK
D509	8-719-104-34	DIODE	1S2836
D510	8-719-120-78	DIODE	RD6.2ES-L3
D511	8-719-110-13	DIODE	RD9.1ES-B2
D512	8-719-109-89	DIODE	RD5.6ES-B2
D513	8-719-110-13	DIODE	RD9.1ES-B2
D514	8-719-945-59	DIODE	DSA3A4

MAIN

Ref. No.	Part No.	Description	Remark
D515	8-719-120-78	DIODE RD6.2ES-L3	
D516	8-719-110-46	DIODE RD16ES-B3	
D517	8-719-120-78	DIODE RD6.2ES-L3	
D518	8-719-400-18	DIODE MA152WK	
D601	8-719-911-19	DIODE 1SS119	
D602	8-719-911-19	DIODE 1SS119	
D603	8-719-911-19	DIODE 1SS119	
D604	8-719-911-19	DIODE 1SS119	
D605	8-719-104-34	DIODE 1S2836	
D606	8-719-800-76	DIODE 1SS226	
D731	8-719-911-19	DIODE 1SS119	
D901	8-719-109-85	DIODE RD5.1ES-B2	
D950	8-719-400-18	DIODE MA152WK	
D951	8-719-911-19	DIODE 1SS119	
D952	8-719-110-13	DIODE RD9.1ES-B2	
		< FRONTEND >	
FE601	1-193-066-21	TUNER UNIT (FM/AM)	
		< HIC >	
HIC601	1-808-515-11	IC NMX3S920	
		< IC >	
IC101	8-759-909-71	IC BA4558F	
IC102	8-759-909-71	IC BA4558F	
IC103	8-759-909-71	IC BA4558F	
IC104	8-759-909-71	IC BA4558F	
IC201	8-759-909-71	IC BA4558F	
IC202	8-759-909-71	IC BA4558F	
IC203	8-759-909-71	IC BA4558F	
IC204	8-759-909-71	IC BA4558F	
IC301	8-759-820-15	IC LC7537AN	
IC302	8-759-932-64	IC BU4052BF	
IC303	8-759-909-71	IC BA4558F	
IC304	8-759-048-67	IC BA3121F	
IC305	8-759-909-71	IC BA4558F	
IC501	8-759-981-65	IC LM2903M	
IC502	8-759-940-45	IC S-8054HN-CB	
IC503	8-759-421-13	IC AN8009M	
IC504	8-759-071-92	IC uPD75518GF-032-3B9	
IC601	8-759-066-24	IC uPD75116GF-F40-3BE	
IC602	8-759-513-42	IC X24C04SI	
IC603	8-759-823-81	IC LC7216M	
IC701	8-759-062-62	IC TDA1554	
IC901	8-759-060-19	IC SM5871AS	
IC950	8-759-982-31	IC RC78M05FA	
IC951	8-759-982-07	IC RC7808FA	
IC952	8-759-802-76	IC LB1645N	
		< JUMPER RESISTOR >	
JR301	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR501	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR504	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR505	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR601	1-216-295-00	METAL CHIP 0 5% 1/10W(US, CND)	
JR602	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR603	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR604	1-216-295-00	METAL CHIP 0 5% 1/10W(US, CND)	
JR605	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR606	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR607	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR608	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR609	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L301	1-216-296-00	METAL CHIP 0 5% 1/8W	
L501	1-410-513-11	INDUCTOR 22uH	
L601	1-410-513-11	INDUCTOR 22uH	
L602	1-410-513-11	INDUCTOR 22uH	
L901	1-408-424-00	INDUCTOR 180uH	
L902	1-410-396-01	INDUCTOR 100K 5% 1/10W	
		< TRANSISTOR >	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-901-05	TRANSISTOR DTA124EK	
Q302	8-729-901-00	TRANSISTOR DTC124EK	
Q402	8-729-920-22	TRANSISTOR DTC314TK	
Q403	8-729-920-22	TRANSISTOR DTC314TK	
Q404	8-729-920-22	TRANSISTOR DTC314TK	
Q405	8-729-920-22	TRANSISTOR DTC314TK	
Q501	8-729-901-05	TRANSISTOR DTA124EK	
Q502	8-729-901-00	TRANSISTOR DTC124EK	
Q503	8-729-922-65	TRANSISTOR 2SD1760F5-PQR	
Q504	8-729-922-65	TRANSISTOR 2SD1760F5-PQR	
Q505	8-729-901-00	TRANSISTOR DTC124EK	
Q507	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q508	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q509	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q510	8-729-216-22	TRANSISTOR 2SA1162	
Q511	8-729-216-22	TRANSISTOR 2SA1162	
Q514	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q515	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q516	8-729-920-86	TRANSISTOR 2SD1664	
Q517	8-729-105-29	TRANSISTOR 2SA1385	
Q518	8-729-901-00	TRANSISTOR DTC124EK	

Ref. No.	Part No.	Description	Remark
Q519	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q520	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q521	8-729-105-29	TRANSISTOR 2SA1385	
Q522	8-729-901-00	TRANSISTOR DTC124EK	
Q523	8-729-922-65	TRANSISTOR 2SD1760F5-PQR	
Q524	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q525	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q526	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q530	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q531	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q598	8-729-901-00	TRANSISTOR DTC124EK	
Q601	8-729-904-57	TRANSISTOR DTB114EK	
Q602	8-729-216-22	TRANSISTOR 2SA1162	
Q603	8-729-106-60	TRANSISTOR 2SB1115A	
Q605	8-729-809-71	TRANSISTOR 2SK536	
Q608	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q609	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q611	8-729-901-05	TRANSISTOR DTA124EK	
Q620	8-729-901-00	TRANSISTOR DTC124EK	
Q701	8-729-901-00	TRANSISTOR DTC124EK	
Q702	8-729-901-00	TRANSISTOR DTC124EK	
Q901	8-729-901-00	TRANSISTOR DTC124EK	
Q950	8-729-105-29	TRANSISTOR 2SA1385	
Q951	8-729-920-22	TRANSISTOR DTC314TK	
Q952	8-729-106-60	TRANSISTOR 2SB1115A	
Q953	8-729-105-29	TRANSISTOR 2SA1385	
Q954	8-729-920-22	TRANSISTOR DTC314TK	
Q956	8-729-920-22	TRANSISTOR DTC314TK	

< RESISTOR >

R102	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R103	1-216-073-00	METAL CHIP	10K	5%	1/10W
R104	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-083-00	METAL CHIP	27K	5%	1/10W
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W
R108	1-216-121-00	METAL CHIP	1M	5%	1/10W
R109	1-216-083-00	METAL CHIP	27K	5%	1/10W
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R111	1-216-121-00	METAL CHIP	1M	5%	1/10W
R112	1-216-041-00	METAL CHIP	470	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R115	1-216-121-00	METAL CHIP	1M	5%	1/10W
R116	1-216-121-00	METAL CHIP	1M	5%	1/10W
R119	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R120	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R121	1-216-090-00	METAL CHIP	51K	5%	1/10W
R122	1-216-090-00	METAL CHIP	51K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-089-00	METAL CHIP	47K	5%	1/10W
R125	1-216-073-00	METAL CHIP	10K	5%	1/10W
R126	1-216-089-00	METAL CHIP	47K	5%	1/10W
R127	1-216-080-00	METAL CHIP	20K	5%	1/10W(US, CND)
R127	1-216-085-00	METAL CHIP	33K	5%	1/10W(E)
R128	1-216-073-00	METAL CHIP	10K	5%	1/10W
R129	1-216-089-00	METAL CHIP	47K	5%	1/10W
R131	1-216-073-00	METAL CHIP	10K	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R133	1-216-089-00	METAL CHIP	47K	5%	1/10W
R140	1-216-025-00	METAL CHIP	100	5%	1/10W
R141	1-216-295-00	METAL CHIP	0	5%	1/10W
R143	1-216-295-00	METAL CHIP	0	5%	1/10W
R202	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W
R206	1-216-083-00	METAL CHIP	27K	5%	1/10W
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W
R208	1-216-121-00	METAL CHIP	1M	5%	1/10W
R209	1-216-083-00	METAL CHIP	27K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-121-00	METAL CHIP	1M	5%	1/10W
R212	1-216-041-00	METAL CHIP	470	5%	1/10W
R213	1-216-077-00	METAL CHIP	15K	5%	1/10W
R214	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R215	1-216-121-00	METAL CHIP	1M	5%	1/10W
R216	1-216-121-00	METAL CHIP	1M	5%	1/10W
R219	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R220	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R221	1-216-090-00	METAL CHIP	51K	5%	1/10W
R222	1-216-090-00	METAL CHIP	51K	5%	1/10W
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W
R224	1-216-089-00	METAL CHIP	47K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-089-00	METAL CHIP	47K	5%	1/10W
R227	1-216-080-00	METAL CHIP	20K	5%	1/10W(US, CND)
R227	1-216-085-00	METAL CHIP	33K	5%	1/10W(E)
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R229	1-216-089-00	METAL CHIP	47K	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-073-00	METAL CHIP	10K	5%	1/10W
R233	1-216-089-00	METAL CHIP	47K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R240	1-216-025-00	METAL CHIP	100	5%	1/10W
R241	1-216-295-00	METAL CHIP	0	5%	1/10W
R243	1-216-295-00	METAL CHIP	0	5%	1/10W
R301	1-216-097-00	METAL CHIP	100K	5%	1/10W
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W
R303	1-216-089-00	METAL CHIP	47K	5%	1/10W
R304	1-216-049-00	METAL CHIP	1K	5%	1/10W
R402	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R403	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R404	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R405	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R409	1-216-295-00	METAL CHIP	0	5%	1/10W
R501	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R502	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R504	1-216-025-00	METAL CHIP	100	5%	1/10W
R511	1-216-049-00	METAL CHIP	1K	5%	1/10W
R512	1-216-089-00	METAL CHIP	47K	5%	1/10W
R513	1-216-089-00	METAL CHIP	47K	5%	1/10W
R514	1-216-089-00	METAL CHIP	47K	5%	1/10W
R515	1-216-073-00	METAL CHIP	10K	5%	1/10W
R516	1-216-081-00	METAL CHIP	22K	5%	1/10W
R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R518	1-216-081-00	METAL CHIP	22K	5%	1/10W
R519	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R520	1-216-081-00	METAL CHIP	22K	5%	1/10W
R521	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R522	1-216-089-00	METAL CHIP	47K	5%	1/10W
R523	1-216-089-00	METAL CHIP	47K	5%	1/10W
R524	1-216-097-00	METAL CHIP	100K	5%	1/10W
R525	1-216-097-00	METAL CHIP	100K	5%	1/10W
R526	1-216-049-00	METAL CHIP	1K	5%	1/10W
R527	1-216-089-00	METAL CHIP	47K	5%	1/10W
R528	1-216-089-00	METAL CHIP	47K	5%	1/10W
R529	1-216-089-00	METAL CHIP	47K	5%	1/10W
R530	1-216-089-00	METAL CHIP	47K	5%	1/10W
R531	1-216-089-00	METAL CHIP	47K	5%	1/10W
R532	1-216-089-00	METAL CHIP	47K	5%	1/10W
R533	1-216-097-00	METAL CHIP	100K	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R536	1-216-073-00	METAL CHIP	10K	5%	1/10W
R537	1-216-081-00	METAL CHIP	22K	5%	1/10W
R538	1-216-081-00	METAL CHIP	22K	5%	1/10W
R539	1-216-097-00	METAL CHIP	100K	5%	1/10W
R541	1-216-089-00	METAL CHIP	47K	5%	1/10W
R542	1-216-073-00	METAL CHIP	10K	5%	1/10W
R543	1-216-073-00	METAL CHIP	10K	5%	1/10W
R544	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R545	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R546	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R547	1-216-073-00	METAL CHIP	10K	5%	1/10W
R548	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R549	1-216-073-00	METAL CHIP	10K	5%	1/10W
R550	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R551	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R552	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R553	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R554	1-216-097-00	METAL CHIP	100K	5%	1/10W
R555	1-216-097-00	METAL CHIP	100K	5%	1/10W
R557	1-216-105-00	METAL CHIP	220K	5%	1/10W
R558	1-216-089-00	METAL CHIP	47K	5%	1/10W
R559	1-216-073-00	METAL CHIP	10K	5%	1/10W
R560	1-216-089-00	METAL CHIP	47K	5%	1/10W
R561	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R562	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R563	1-216-077-00	METAL CHIP	15K	5%	1/10W
R567	1-216-097-00	METAL CHIP	100K	5%	1/10W
R568	1-216-097-00	METAL CHIP	100K	5%	1/10W
R570	1-216-097-00	METAL CHIP	100K	5%	1/10W
R571	1-216-097-00	METAL CHIP	100K	5%	1/10W
R572	1-216-097-00	METAL CHIP	100K	5%	1/10W
R573	1-216-097-00	METAL CHIP	100K	5%	1/10W
R574	1-216-097-00	METAL CHIP	100K	5%	1/10W
R575	1-216-097-00	METAL CHIP	100K	5%	1/10W
R595	1-216-097-00	METAL CHIP	100K	5%	1/10W
R596	1-216-097-00	METAL CHIP	100K	5%	1/10W
R601	1-216-089-00	METAL CHIP	47K	5%	1/10W
R602	1-216-097-00	METAL CHIP	100K	5%	1/10W
R603	1-216-097-00	METAL CHIP	100K	5%	1/10W
R604	1-216-097-00	METAL CHIP	100K	5%	1/10W
R605	1-216-097-00	METAL CHIP	100K	5%	1/10W
R606	1-216-097-00	METAL CHIP	100K	5%	1/10W
R607	1-216-097-00	METAL CHIP	100K	5%	1/10W
R608	1-216-073-00	METAL CHIP	10K	5%	1/10W
R610	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R611	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R613	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R616	1-216-073-00	METAL CHIP	10K	5%	1/10W
R617	1-216-073-00	METAL CHIP	10K	5%	1/10W
R618	1-216-073-00	METAL CHIP	10K	5%	1/10W
R619	1-216-049-00	METAL CHIP	1K	5%	1/10W
R620	1-216-049-00	METAL CHIP	1K	5%	1/10W
R623	1-216-049-00	METAL CHIP	1K	5%	1/10W
R624	1-216-041-00	METAL CHIP	470	5%	1/10W
R625	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R626	1-216-061-00	METAL CHIP	3.3K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R627	1-216-073-00	METAL CHIP	10K	5%	1/10W
R628	1-216-073-00	METAL CHIP	10K	5%	1/10W
R629	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R630	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R631	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R632	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R633	1-216-073-00	METAL CHIP	10K	5%	1/10W
R634	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R635	1-216-080-00	METAL CHIP	20K	5%	1/10W
R636	1-216-089-00	METAL CHIP	47K	5%	1/10W
R637	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R638	1-216-085-00	METAL CHIP	33K	5%	1/10W
R639	1-216-085-00	METAL CHIP	33K	5%	1/10W
R640	1-216-079-00	METAL CHIP	18K	5%	1/10W
R670	1-216-097-00	METAL CHIP	100K	5%	1/10W
R671	1-216-097-00	METAL CHIP	100K	5%	1/10W
R672	1-216-097-00	METAL CHIP	100K	5%	1/10W
R673	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R699	1-216-097-00	METAL CHIP	100K	5%	1/10W
R731	1-216-089-00	METAL CHIP	47K	5%	1/10W
R732	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R733	1-216-097-00	METAL CHIP	100K	5%	1/10W
R901	1-216-025-00	METAL CHIP	100	5%	1/10W
R902	1-216-037-00	METAL CHIP	330	5%	1/10W
R903	1-216-073-00	METAL CHIP	10K	5%	1/10W
R904	1-216-121-00	METAL CHIP	1M	5%	1/10W
R912	1-216-037-00	METAL CHIP	330	5%	1/10W
R913	1-216-037-00	METAL CHIP	330	5%	1/10W
R914	1-216-037-00	METAL CHIP	330	5%	1/10W
R950	1-216-073-00	METAL CHIP	10K	5%	1/10W
R951	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R952	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R953	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R954	1-216-073-00	METAL CHIP	10K	5%	1/10W
R955	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R956	1-216-045-00	METAL CHIP	680	5%	1/10W
R957	1-216-073-00	METAL CHIP	10K	5%	1/10W
R961	1-216-097-00	METAL CHIP	100K	5%	1/10W
R962	1-216-097-00	METAL CHIP	100K	5%	1/10W
R963	1-216-097-00	METAL CHIP	100K	5%	1/10W
R964	1-216-097-00	METAL CHIP	100K	5%	1/10W
R965	1-216-027-00	METAL CHIP	120	5%	1/10W
R966	1-216-001-00	METAL CHIP	10	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV601	1-238-716-11	RES, ADJ, METAL GLAZE 100K			
RV602	1-238-713-11	RES, ADJ, METAL GLAZE 10K			
RV603	1-238-204-11	RES, ADJ, METAL GLAZE 10K			
		< SWITCH >			
SW501	1-571-426-11	SWITCH, SLIDE			
SW602	1-572-272-11	SWITCH, SLIDE (9K-16K)			
SW701	1-572-186-21	SWITCH, SLIDE			
		< THERMISTOR >			
TH501	1-809-148-11	THERMISTOR, POSITIVE			
TH502	1-809-148-11	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X501	1-567-776-21	VIBRATOR, CERAMIC (6.0MHz)			
X502	1-579-532-11	VIBRATOR, CRYSTAL (32.768MHz)			
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)			
X602	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)			
X603	1-567-250-11	OSCILLATOR, CERAMIC			
X901	1-567-820-11	VIBRATOR, CRYSTAL			
**********					
*	A-3279-978-A	RF BOARD, COMPLETE			
		**********			
	1-568-141-11	HOUSING, CONNECTOR 5P			
	1-568-142-11	HOUSING, CONNECTOR 13P			
	8-752-037-50	IC CXA1082BQ			
	8-752-057-45	IC CXA1082BQ			
		< CAPACITOR >			
C1	1-135-166-21	TANTALUM CHIP	47uF	10%	10V
C2	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3	1-126-599-11	ELECT	330uF	20%	6.3V
C4	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C5	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C6	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-163-078-11	CERAMIC CHIP	0.033uF	10%	25V
C8	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C9	1-126-593-11	ELECT CHIP	0.47uF	20%	50V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C12	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C13	1-126-593-11	ELECT CHIP	0.47uF	20%	50V
C14	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C15	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

RF

Ref. No.	Part No.	Description			Remark
C16	1-126-590-11	ELECT CHIP	22uF	20%	4V
C17	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C18	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C19	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C20	1-126-592-11	ELECT CHIP	4.7uF	20%	16V
C21	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C22	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C23	1-126-591-11	ELECT CHIP	10uF	20%	6.3V
C24	1-126-594-11	ELECT CHIP	1uF	20%	50V
C25	1-126-594-11	ELECT CHIP	1uF	20%	50V
C26	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C27	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C29	1-126-590-11	ELECT CHIP	22uF	20%	4V
C30	1-126-590-11	ELECT CHIP	22uF	20%	4V
C31	1-126-590-11	ELECT CHIP	22uF	20%	4V
C34	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C35	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C36	1-126-592-11	ELECT CHIP	4.7uF	20%	16V
C37	1-126-591-11	ELECT CHIP	10uF	20%	6.3V
C38	1-162-638-11	CERAMIC CHIP	1uF		16V
C39	1-162-638-11	CERAMIC CHIP	1uF		16V
C40	1-126-176-11	ELECT	220uF	20%	10V
C99	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< JACK >			
CNJ13	1-566-531-11	CONNECTOR, FPC (ZIF) 15P			
CNJ14	1-566-531-11	CONNECTOR, FPC (ZIF) 15P			
		< CONNECTOR >			
* CNP10	1-506-990-11	PIN, CONNECTOR (PC BOARD) 8P			
		< IC >			
IC1	8-752-033-14	IC CXA1081Q			
IC2	8-752-037-50	IC CXA1082BQ			
IC3	8-752-341-93	IC CXD1167Q			
IC4	8-759-821-76	IC LA6533			
IC5	8-759-821-76	IC LA6533			
		< JUMPER RESISTOR >			
JR1	1-216-296-00	METAL CHIP	0	5%	1/8W
JR2	1-216-296-00	METAL CHIP	0	5%	1/8W
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W
JR4	1-216-296-00	METAL CHIP	0	5%	1/8W
JR5	1-216-296-00	METAL CHIP	0	5%	1/8W
JR6	1-216-296-00	METAL CHIP	0	5%	1/8W
JR7	1-216-296-00	METAL CHIP	0	5%	1/8W
JR8	1-216-296-00	METAL CHIP	0	5%	1/8W
JR9	1-216-296-00	METAL CHIP	0	5%	1/8W
JR10	1-216-296-00	METAL CHIP	0	5%	1/8W

Ref. No.	Part No.	Description			Remark
JR11	1-216-296-00	METAL CHIP	0	5%	1/8W
JR12	1-216-296-00	METAL CHIP	0	5%	1/8W
JR13	1-216-296-00	METAL CHIP	0	5%	1/8W
JR14	1-216-296-00	METAL CHIP	0	5%	1/8W
JR15	1-216-296-00	METAL CHIP	0	5%	1/8W
JR16	1-216-296-00	METAL CHIP	0	5%	1/8W
JR17	1-216-296-00	METAL CHIP	0	5%	1/8W
JR18	1-216-296-00	METAL CHIP	0	5%	1/8W
JR19	1-216-296-00	METAL CHIP	0	5%	1/8W
JR20	1-216-296-00	METAL CHIP	0	5%	1/8W
JR21	1-216-296-00	METAL CHIP	0	5%	1/8W
JR22	1-216-296-00	METAL CHIP	0	5%	1/8W
JR23	1-216-296-00	METAL CHIP	0	5%	1/8W
JR24	1-216-296-00	METAL CHIP	0	5%	1/8W
JR25	1-216-296-00	METAL CHIP	0	5%	1/8W
JR26	1-216-296-00	METAL CHIP	0	5%	1/8W
JR27	1-216-296-00	METAL CHIP	0	5%	1/8W
JR28	1-216-296-00	METAL CHIP	0	5%	1/8W
JR29	1-216-296-00	METAL CHIP	0	5%	1/8W
JR30	1-216-296-00	METAL CHIP	0	5%	1/8W
JR31	1-216-296-00	METAL CHIP	0	5%	1/8W
JR32	1-216-296-00	METAL CHIP	0	5%	1/8W
JR33	1-216-296-00	METAL CHIP	0	5%	1/8W
JR34	1-216-296-00	METAL CHIP	0	5%	1/8W
JR51	1-216-295-00	METAL CHIP	0	5%	1/10W
JR52	1-216-295-00	METAL CHIP	0	5%	1/10W
JR53	1-216-295-00	METAL CHIP	0	5%	1/10W
JR54	1-216-295-00	METAL CHIP	0	5%	1/10W
JR55	1-216-295-00	METAL CHIP	0	5%	1/10W
JR56	1-216-295-00	METAL CHIP	0	5%	1/10W
JR57	1-216-295-00	METAL CHIP	0	5%	1/10W
JR58	1-216-295-00	METAL CHIP	0	5%	1/10W
JR59	1-216-295-00	METAL CHIP	0	5%	1/10W
JR60	1-216-295-00	METAL CHIP	0	5%	1/10W
JR61	1-216-295-00	METAL CHIP	0	5%	1/10W
JR62	1-216-295-00	METAL CHIP	0	5%	1/10W
JR63	1-216-295-00	METAL CHIP	0	5%	1/10W
JR64	1-216-295-00	METAL CHIP	0	5%	1/10W
JR65	1-216-295-00	METAL CHIP	0	5%	1/10W
		< COIL >			
L1	1-410-204-31	INDUCTOR CHIP 10uH			
L2	1-410-198-51	INDUCTOR CHIP 3.3uH			
		< TRANSISTOR >			
Q1	8-729-900-53	TRANSISTOR DTC114EK			
Q2	8-729-900-53	TRANSISTOR DTC114EK			
Q3	8-729-900-53	TRANSISTOR DTC114EK			
Q4	8-729-141-48	TRANSISTOR 2SB624-BV345			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R1	1-216-150-00	METAL GLAZE	10	5%	1/8W
R2	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R4	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R5	1-216-081-00	METAL CHIP	22K	5%	1/10W
R6	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R7	1-216-097-00	METAL CHIP	100K	5%	1/10W
R8	1-216-073-00	METAL CHIP	10K	5%	1/10W
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W
R11	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R12	1-216-105-00	METAL CHIP	220K	5%	1/10W
R13	1-216-121-00	METAL CHIP	1M	5%	1/10W
R14	1-216-105-00	METAL CHIP	220K	5%	1/10W
R15	1-216-085-00	METAL CHIP	33K	5%	1/10W
R16	1-216-085-00	METAL CHIP	33K	5%	1/10W
R17	1-216-085-00	METAL CHIP	33K	5%	1/10W
R18	1-216-081-00	METAL CHIP	22K	5%	1/10W
R19	1-216-081-00	METAL CHIP	22K	5%	1/10W
R20	1-216-085-00	METAL CHIP	33K	5%	1/10W
R21	1-216-085-00	METAL CHIP	33K	5%	1/10W
R22	1-216-097-00	METAL CHIP	100K	5%	1/10W
R23	1-216-097-00	METAL CHIP	100K	5%	1/10W
R24	1-216-103-00	METAL CHIP	180K	5%	1/10W
R25	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R26	1-216-085-00	METAL CHIP	33K	5%	1/10W
R27	1-216-085-00	METAL CHIP	33K	5%	1/10W
R28	1-216-081-00	METAL CHIP	22K	5%	1/10W
R29	1-216-081-00	METAL CHIP	22K	5%	1/10W
R30	1-216-085-00	METAL CHIP	33K	5%	1/10W
R31	1-216-097-00	METAL CHIP	100K	5%	1/10W
R32	1-216-076-00	METAL CHIP	13K	5%	1/10W
R33	1-216-076-00	METAL CHIP	13K	5%	1/10W
R34	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R35	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R36	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R37	1-216-103-00	METAL CHIP	180K	5%	1/10W
R38	1-216-097-00	METAL CHIP	100K	5%	1/10W
R39	1-216-097-00	METAL CHIP	100K	5%	1/10W
R40	1-216-097-00	METAL CHIP	100K	5%	1/10W
R41	1-216-073-00	METAL CHIP	10K	5%	1/10W
R42	1-216-073-00	METAL CHIP	10K	5%	1/10W
R43	1-216-198-00	METAL CHIP	1K	5%	1/8W
R44	1-216-198-00	METAL CHIP	1K	5%	1/8W
R45	1-216-198-00	METAL CHIP	1K	5%	1/8W
R46	1-216-049-00	METAL CHIP	1K	5%	1/10W
R47	1-216-229-00	METAL GLAZE	20K	5%	1/8W
R48	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W
R49	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R50	1-216-085-00	METAL CHIP	33K	5%	1/10W
R51	1-216-081-00	METAL CHIP	22K	5%	1/10W
R52	1-216-081-00	METAL CHIP	22K	5%	1/10W
R53	1-216-081-00	METAL CHIP	22K	5%	1/10W
R54	1-216-081-00	METAL CHIP	22K	5%	1/10W
R55	1-216-024-00	METAL GLAZE	91	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-237-005-11	RES, ADJ, METAL GLAZE	22K		
RV2	1-238-206-11	RES, ADJ, METAL GLAZE	47K		
RV3	1-238-665-11	RES, ADJ, CERMET	22K		
RV4	1-238-665-11	RES, ADJ, CERMET	22K		
RV5	1-238-662-11	RES, ADJ, CERMET	2.2K		
		< THERMISTOR >			
TH1	1-808-656-11	THERMISTOR			
TH2	1-808-656-11	THERMISTOR			
*	1-634-330-11	SENSOR BOARD			
		**********			
		< JUMPER RESISTOR >			
JR90	1-216-296-00	METAL CHIP	0	5%	1/8W
JR91	1-216-296-00	METAL CHIP	0	5%	1/8W
JR92	1-216-296-00	METAL CHIP	0	5%	1/8W
		< TRANSISTOR >			
Q90	8-729-402-08	TRANSISTOR	PN147-LF		
Q91	8-729-402-08	TRANSISTOR	PN147-LF		
Q92	8-729-402-08	TRANSISTOR	PN147-LF		
		MISCELLANEOUS			
		**********			
11	1-690-485-11	CORD (WITH CONNECTOR)			
12	1-690-754-11	CORD (WITH CONNECTOR)			(RCA)
12	1-690-754-21	CORD (WITH CONNECTOR)			(RCA)
13	1-690-722-11	CORD (WITH CONNECTOR)			(SP)
320	1-554-938-11	SWITCH, LEAF			
332	1-454-461-11	SOLENOID, PLUNGER			
⚠926	8-848-224-11	DEVICE, OPTICAL KSS-320B			
M901	A-4910-183-A	MOTOR ASSY, SL (SLED)			
M902	1-541-448-41	MOTOR (SPINDLE)			
M903	1-541-560-11	MOTOR, DC			
S901	1-570-771-11	SWITCH			

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	X-3364-646-1	CASE ASSY	
	1-690-720-11	CORD (WITH CONNECTOR)	
⚠ F1	1-532-414-11	FUSE (1A 125V)	
⚠ F2	1-532-422-11	FUSE (6.3A 125V)	
	1-690-722-11	CORD (WITH CONNECTOR) (SP)	
	3-323-209-01	BOLT (4-5), STUD	
	3-323-210-01	ADJUSTOR, STUD BOLT	
	3-323-219-01	FRAME, FITTING	
	3-349-410-01	BUSHING	
*	3-355-207-01	CARDBOARD (E)	
	3-374-200-01	SPRING (FITTING)	
	3-376-301-01	COLLAR	
*	3-376-450-01	CUSHION (UPPER)	
*	3-376-451-01	CUSHION (LOWER)	
	3-376-549-01	HOLDER (WMJ)	
	3-376-995-01	CUSHION (W)	
	3-754-588-21	MANUAL, INSTRUCTION (US, CND) (ENGLISH, FRENCH)	
	3-754-588-51	MANUAL, INSTRUCTION (E) (ENGLISH, SPANISH, CHINESE)	
	3-754-589-21	MANUAL, INSTRUCTION (US, CND) (ENGLISH, FRENCH)	
	3-754-589-51	MANUAL, INSTRUCTION (E) (ENGLISH, SPANISH, CHINESE)	

****

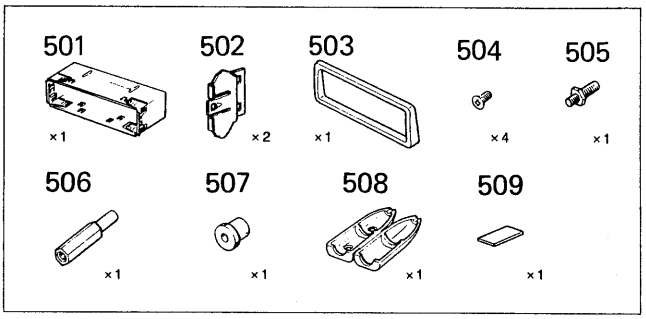
****
HARDWARE LIST
****

#1	7-621-255-25	SCREW +P 2X4
#2	7-621-770-67	SCREW +PTT 2.6X6 (S)
#3	7-621-770-XX	SCREW +PTT 2.6X8 (S)
#4	7-621-772-10	SCREW +B 2X4
#5	7-621-773-95	SCREW (+PTT 2.6X6), GROUND POINT
#6	7-624-101-01	STOP RING 1.2 (E TYPE)
#7	7-627-853-57	PRECISION SCREW +P 2X5 TYPE3
#8	7-682-550-09	SCREW +B 3X12
#9	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
#10	7-627-553-37	SCREW, PRECISION +P 2X3
#11	7-621-772-08	SCREW +B 2X3
#12	7-624-104-04	STOP RING 2.0, TYPE -E
#13	7-627-552-18	SCREW, PRECISION +P 1.7X1.6
#14	7-627-553-28	SCREW, PRECISION +P 2X2.5
#15	7-627-850-57	SCREW, PRECISION +P 1.4X3.5
#16	7-627-553-17	SCREW, PRECISION +P 2X2.0 TYPE3
#17	7-627-554-18	SCREW, PRECISION +P 2X3.5 TYPE1
#18	7-627-852-17	SCREW, PRECISION +P 1.7X4.0
#19	7-624-106-04	STOP RING 3.0 (E TYPE)
#20	7-627-552-08	SCREW, PRECISION +P 1.7X2.5 TYPE1
#21	7-627-451-17	SCREW, PRECISION +K 1.4X2.5 TYPE1
#22	7-627-451-57	SCREW, PRECISION +K 1.4X4.0 TYPE1

****

• MOUNTING HARDWARE

501	X-3364-646-1	CASE ASSY
502	3-374-200-01	SPRING (FITTING)
503	3-323-219-01	FRAME, FITTING
504	X-3364-679-1	SCREW ASSY (B)
505	3-323-210-01	BOLT (4-5), STUD
506	3-323-210-01	ADJUSTOR, STUD BOLT
507	3-349-410-01	BUSHING
508	3-376-549-01	HOLDER (WMJ)
509	3-376-995-01	CUSHION (W)



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

English
92C0533-1
Printed in Japan
© 1992. 3

Sony Corporation
Mobile Electronics Group

9-956-912-11

Published by Customer Relations and Service Group

CDX-5180

SONY
SERVICE MANUAL

US Model
Canadian Model
E Model

SUPPLEMENT-1

File this supplement with the service manual.

Subject:
- **Main and Display Boards Circuit Modification**
- **Speaker cord change (6 slots to 8 slots)**

This supplement updates the service manual to include production changed.

- **CORRECTION**

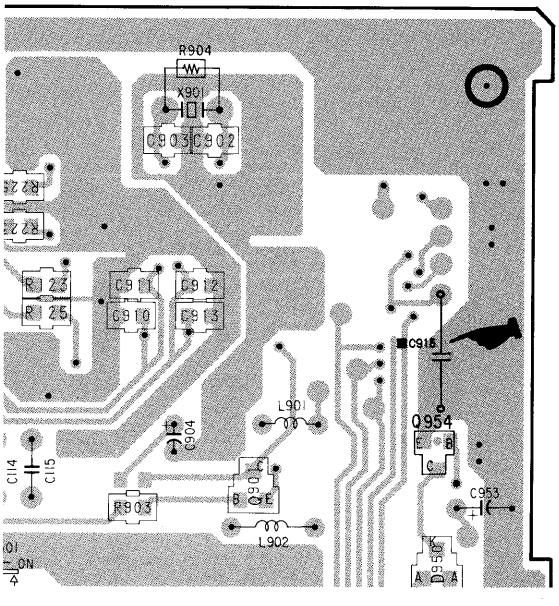
Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page 46

5-8. SCHEMATIC DIAGRAM (MD SECTION)

Location: A-21 to D-22



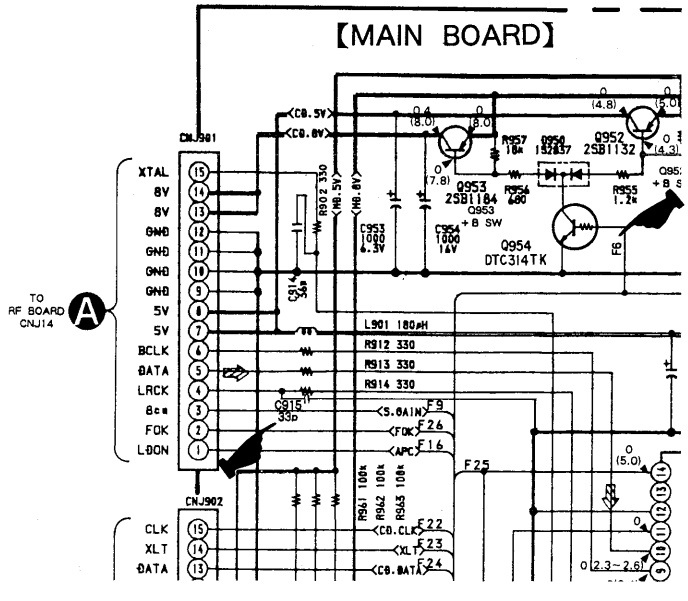
Page 63

Ref. No.	Part No.	Description
☛ C915	1-162-211-31	CERAMIC 33PF 5% 50V

Page 47

5-9. SCHEMATIC DIAGRAM (MAIN SECTION)

2 | 3 | 4 | 5



DISPLAY

1. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	A-3222-369-A	DISPLAY BOARD, COMPLETE	
		**********	
*	3-375-815-01	HOLDER (LCD)	
*	3-375-816-01	PLATE (LCD), LIGHT GUIDE	
	3-379-284-01	SHEET (DIFFUSION)	
		< CAPACITOR >	
C801	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C803	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C804	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C805	1-164-222-11	CERAMIC CHIP 0.22uF	25V
		< CONNECTOR >	
* CNP801	1-691-557-21	PIN, CONNECTOR 12P	
		< DIODE >	
D801	8-719-987-45	DIODE CL-155Y/PG-CD	
D802	8-719-987-45	DIODE CL-155Y/PG-CD	
D803	8-719-987-45	DIODE CL-155Y/PG-CD	
D804	8-719-987-45	DIODE CL-155Y/PG-CD	
D805	8-719-987-45	DIODE CL-155Y/PG-CD	
D806	8-719-987-45	DIODE CL-155Y/PG-CD	
D807	8-719-987-45	DIODE CL-155Y/PG-CD	
D808	8-719-987-45	DIODE CL-155Y/PG-CD	
D809	8-719-987-45	DIODE CL-155Y/PG-CD	
D810	8-719-987-45	DIODE CL-155Y/PG-CD	
D811	8-719-987-45	DIODE CL-155Y/PG-CD	
D812	8-719-987-45	DIODE CL-155Y/PG-CD	
D813	8-719-987-45	DIODE CL-155Y/PG-CD	
D814	8-719-987-45	DIODE CL-155Y/PG-CD	
D815	8-719-987-45	DIODE CL-155Y/PG-CD	
D816	8-719-987-45	DIODE CL-155Y/PG-CD	
D817	8-719-987-45	DIODE CL-155Y/PG-CD	
D818	8-719-987-45	DIODE CL-155Y/PG-CD	
D819	8-719-987-45	DIODE CL-155Y/PG-CD	
D820	8-719-987-45	DIODE CL-155Y/PG-CD	
D821	8-719-987-45	DIODE CL-155Y/PG-CD	
D822	8-719-987-45	DIODE CL-155Y/PG-CD	
D823	8-719-987-45	DIODE CL-155Y/PG-CD	
D833	8-719-422-64	DIODE MA8062-M	
D834	8-719-422-64	DIODE MA8062-M	
D835	8-719-422-64	DIODE MA8062-M	
D836	8-719-404-46	DIODE MA110	
D837	8-719-404-46	DIODE MA110	
D838	8-719-404-46	DIODE MA110	
D839	8-719-404-46	DIODE MA110	
D840	8-719-404-46	DIODE MA110	
D841	8-719-404-46	DIODE MA110	
D842	8-719-404-46	DIODE MA110	
D843	8-719-404-46	DIODE MA110	
D844	8-719-422-43	DIODE MA8051-H	
D846	8-719-404-46	DIODE MA110	
		< IC >	
IC801	8-759-981-65	IC LM2903M	
IC802	8-759-067-68	IC uPD75008GB-679-3B4	
IC803	8-759-246-16	IC TC9240F	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-809-561-21	DISPLAY PANEL, LIQUID CRYSTAL	
		< COIL >	
L801	1-412-006-31	INDUCTOR CHIP 10uH	
		< PILOT LAMP >	
PL801	1-518-677-21	LAMP, PILOT	
PL802	1-518-701-21	LAMP, PILOT	
PL803	1-518-701-21	LAMP, PILOT	
PL804	1-518-677-21	LAMP, PILOT	

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q801	8-729-901-05	TRANSISTOR DTA124EK			
Q802	8-729-422-28	TRANSISTOR 2SD601A-R			
Q803	8-729-422-28	TRANSISTOR 2SD601A-R			
Q804	8-729-904-57	TRANSISTOR DTB114EK			
Q805	8-729-900-53	TRANSISTOR DTC114EK			
Q806	8-729-900-53	TRANSISTOR DTC114EK			
Q807	8-729-904-57	TRANSISTOR DTB114EK			
Q808	8-729-904-66	TRANSISTOR DTD113EK			
Q809	8-729-904-66	TRANSISTOR DTD113EK			
Q810	8-729-904-66	TRANSISTOR DTD113EK			
Q811	8-729-904-66	TRANSISTOR DTD113EK			
		< RESISTOR >			
R801	1-216-182-00	METAL GLAZE	220	5%	1/8W
R802	1-216-178-00	METAL GLAZE	150	5%	1/8W
R803	1-216-182-00	METAL GLAZE	220	5%	1/8W
R804	1-216-178-00	METAL GLAZE	150	5%	1/8W
R805	1-216-182-00	METAL GLAZE	220	5%	1/8W
R806	1-216-178-00	METAL GLAZE	150	5%	1/8W
R807	1-216-178-00	METAL GLAZE	150	5%	1/8W
R808	1-216-182-00	METAL GLAZE	220	5%	1/8W
R809	1-216-184-00	METAL GLAZE	270	5%	1/8W
R810	1-216-188-00	METAL GLAZE	390	5%	1/8W
R811	1-216-178-00	METAL GLAZE	150	5%	1/8W
R812	1-216-182-00	METAL GLAZE	220	5%	1/8W
R813	1-216-178-00	METAL GLAZE	150	5%	1/8W
R814	1-216-182-00	METAL GLAZE	220	5%	1/8W
R815	1-216-180-00	METAL GLAZE	180	5%	1/8W
R816	1-216-184-00	METAL GLAZE	270	5%	1/8W
R826	1-216-089-00	METAL CHIP	47K	5%	1/10W
R827	1-216-089-00	METAL CHIP	47K	5%	1/10W
R828	1-216-081-00	METAL CHIP	22K	5%	1/10W
R829	1-216-105-00	METAL CHIP	220K	5%	1/10W
R830	1-216-081-00	METAL CHIP	22K	5%	1/10W
R831	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R832	1-216-073-00	METAL CHIP	10K	5%	1/10W
R833	1-216-105-00	METAL CHIP	220K	5%	1/10W
R834	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R835	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R836	1-216-081-00	METAL CHIP	22K	5%	1/10W
R837	1-216-073-00	METAL CHIP	10K	5%	1/10W
R838	1-216-049-00	METAL CHIP	1K	5%	1/10W
R839	1-216-049-00	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R840	1-216-049-00	METAL CHIP	1K	5%	1/10W
R841	1-216-089-00	METAL CHIP	47K	5%	1/10W
R842	1-216-097-00	METAL CHIP	100K	5%	1/10W
R845	1-216-049-00	METAL CHIP	1K	5%	1/10W
R844	1-216-041-00	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S801	1-692-037-11	SWITCH, KEY BOARD (⏏)			
S802	1-692-037-11	SWITCH, KEY BOARD (FM)			
S803	1-692-037-11	SWITCH, KEY BOARD (AM)			
S804	1-692-037-11	SWITCH, KEY BOARD (CD)			
S805	1-692-037-11	SWITCH, KEY BOARD (3/SHUF)			
S806	1-692-037-11	SWITCH, KEY BOARD (6)			
S807	1-692-037-11	SWITCH, KEY BOARD (SEEK +)			
S808	1-692-037-11	SWITCH, KEY BOARD (21REP)			
S809	1-692-037-11	SWITCH, KEY BOARD (5)			
S810	1-692-037-11	SWITCH, KEY BOARD (1/INTRO)			
S811	1-692-037-11	SWITCH, KEY BOARD (4)			
S812	1-692-037-11	SWITCH, KEY BOARD (SEEK -)			
S813	1-692-037-11	SWITCH, KEY BOARD (BTM/M, SCAN)			
S814	1-692-037-11	SWITCH, KEY BOARD (WALKMAN)			
S815	1-692-037-11	SWITCH, KEY BOARD (PRESET +)			
S816	1-692-037-11	SWITCH, KEY BOARD (PRESET -)			
S817	1-692-037-11	SWITCH, KEY BOARD (LEVEL +)			
S818	1-692-037-11	SWITCH, KEY BOARD (SEL)			
S819	1-692-037-11	SWITCH, KEY BOARD (LEVEL -)			
S820	1-692-037-11	SWITCH, KEY BOARD (MUTE)			
S821	1-692-037-11	SWITCH, KEY BOARD (DSPL)			
S822	1-692-037-11	SWITCH, KEY BOARD (LOUD/SENS)			
S823	1-692-037-11	SWITCH, KEY BOARD (OFF)			
		< VIBRATOR >			
X801	1-567-775-11	VIBRATOR, CERAMIC 4.19MHz			

****

* A-3273-787-A MAIN BOARD, COMPLETE (US, Canadian)

****

* A-3273-850-A MAIN BOARD, COMPLETE (E)

****

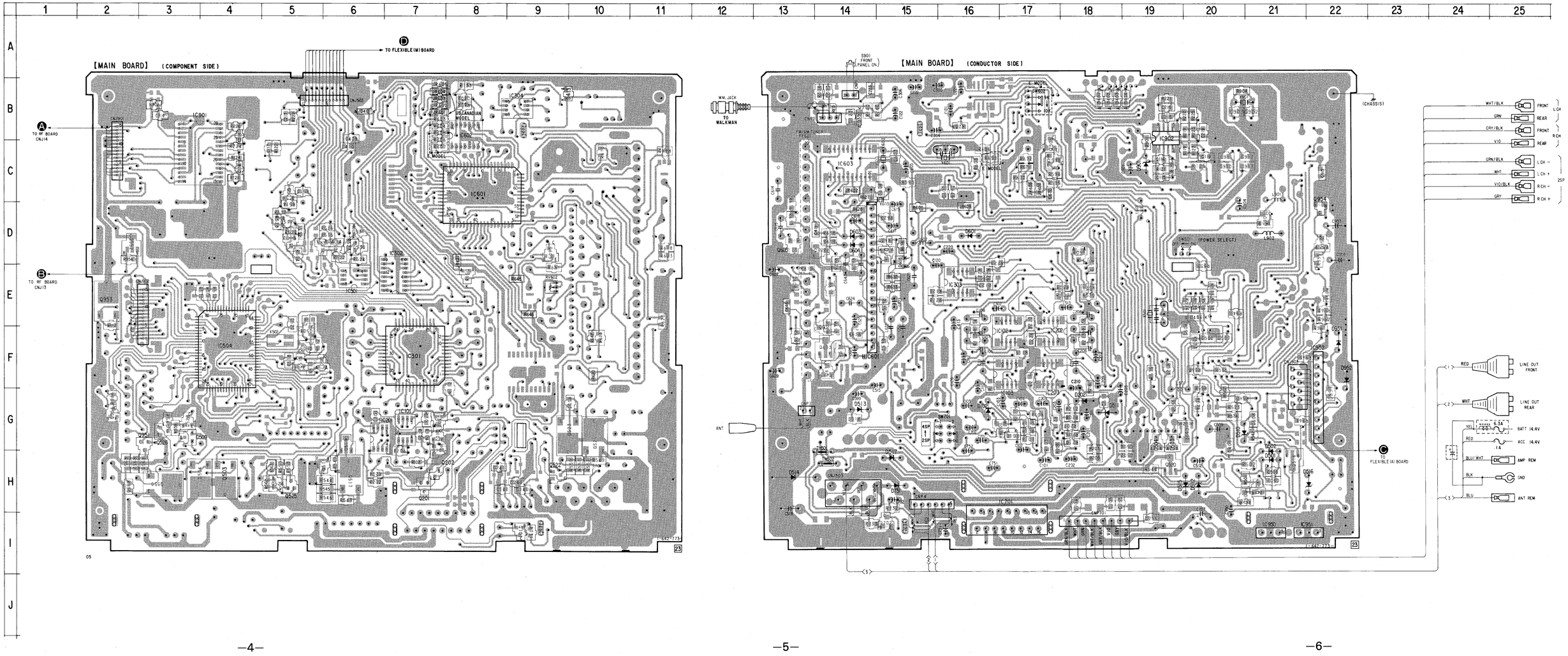
		< CAPACITOR >			
C101	1-126-157-11	ELECT	10uF	20%	16V
C102	1-126-157-11	ELECT	10uF	20%	16V
C103	1-126-301-11	ELECT	1uF	20%	50V
C104	1-126-301-11	ELECT	1uF	20%	50V
C105	1-124-584-00	ELECT	100uF	20%	10V
C106	1-136-162-00	FILM	0.056uF	5%	50V
C107	1-136-162-00	FILM	0.056uF	5%	50V
C108	1-130-476-00	MYLAR	0.0027uF	5%	50V

Continued on page 15.

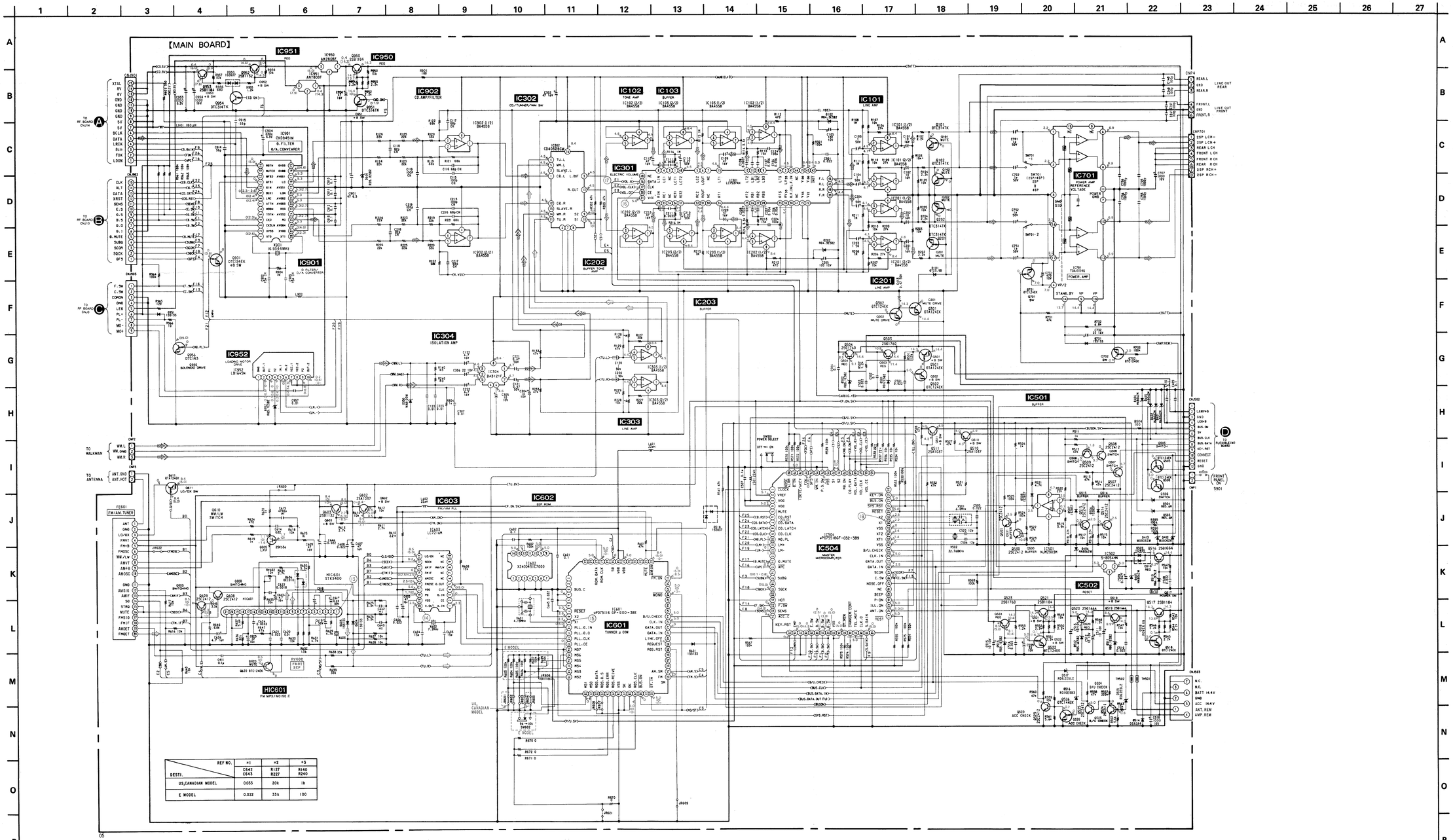
2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

2-1. PRINTED WIRING BOARD (MAIN SECTION)

• See page 11 for Semiconductor Location and page 12 for Semiconductor Lead Layouts.



IC block diagram and waveform informations.
Refer page 31 and page 41 in original service manual (9-956-912-11).



REF NO. / DESTI.	×1	×2	×3
	C642 C643	R127 R227	R140 R240
US,CANADIAN MODEL	0.033	20k	1k
E MODEL	0.022	33k	100

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒ : Pattern from the side which enables seeing.

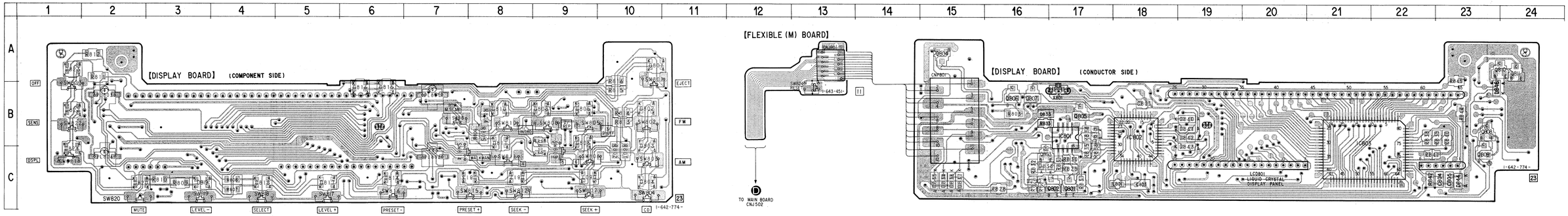
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:

- **All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.**
- **All resistors are in Ω and 1/10 W or less unless otherwise specified.**
- △ : **internal component.**
- ═══ : B + Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from battery and accessory terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM or COMMON
  ( ) : CD
  ( ) : AM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : CD
  ⇨ : AUX

2-3. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM (DISPLAY SECTION)



• Semiconductor Location (MAIN SECTION)

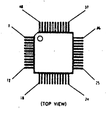
Ref. No.	Location	Ref. No.	Location
D101	G-17	IC701	H-17
D102	G-16	IC901	B-3
D201	G-17	IC950	I-21
D202	F-18	IC951	I-22
D350	B-14	IC952	F-22
D351	B-14		
D352	B-15	Q101	G-7
D405	G-20	Q102	G-7
D406	E-20	Q201	H-7
D409	H-17	Q202	H-7
D410	G-17	Q301	G-17
D412	B-6	Q302	G-7
D501	G-21	Q402	H-8
D502	G-21	Q403	H-9
D503	G-19	Q404	H-9
D504	G-19	Q405	H-8
D506	D-6	Q501	H-21
D507	F-5	Q502	H-21
D508	D-18	Q503	H-4
D509	G-3	Q504	H-4
D510	G-20	Q505	B-17
D511	G-18	Q507	C-5
D512	H-20	Q508	F-5
D513	G-14	Q509	F-5
D514	H-13	Q510	D-5
D515	H-20	Q511	D-5
D516	H-22	Q514	D-5
D517	G-15	Q515	F-5
D518	E-8	Q516	G-21
D601	D-16	Q517	H-6
D602	D-15	Q518	H-6
D603	D-14	Q519	G-6
D604	D-14	Q520	H-19
D606	D-15	Q521	G-10
D731	H-15	Q522	H-9
D901	C-19	Q523	G-10
D950	D-22	Q524	H-5
D951	F-22	Q525	H-5
D952	G-22	Q526	G-3
		Q529	G-3
IC101	G-7	Q530	D-6
IC102	E-17	Q531	D-6
IC103	F-17	Q598	C-17
IC104	C-19	Q602	E-14
IC201	G-6	Q603	F-14
IC202	E-17	Q605	D-13
IC203	F-17	Q608	D-15
IC204	B-19	Q609	D-9
IC301	F-7	Q611	F-14
IC302	D-7	Q620	D-14
IC303	E-16	Q701	I-9
IC304	B-9	Q702	H-15
IC305	B-16	Q901	D-21
IC501	E-6	Q950	H-3
IC502	G-20	Q951	G-3
IC503	F-14	Q952	D-2
IC504	F-4	Q953	E-2
IC601	C-8	Q954	D-22
IC602	B-8	Q956	G-2
IC603	C-14		

• Semiconductor Location (DISPLAY SECTION)

Ref. No.	Location	Ref. No.	Location
D801	A-10	D836	C-15
D802	B-10	D837	C-15
D803	C-10	D838	C-16
D804	C-10	D839	B-17
D805	B-9	D840	B-19
D806	B-9	D841	B-19
D807	C-9	D842	B-19
D808	B-9	D843	C-19
D809	C-9	D844	C-23
D810	B-8	D846	B-23
D811	B-8		
D812	C-8	IC801	B-17
D813	C-7	IC802	B-18
D814	C-6	IC803	B-21
D815	B-6		
D816	B-6	Q801	C-17
D817	C-5	Q802	C-17
D818	C-4	Q803	C-16
D819	C-3	Q804	A-15
D820	C-2	Q805	B-17
D821	C-1	Q806	B-16
D822	B-1	Q807	B-16
D823	A-1	Q808	B-23
D833	B-16	Q809	C-23
D834	C-15	Q810	A-24
D835	C-15	Q811	A-24

• Semiconductor Lead Layouts

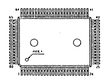
LC7537AN



DSA3A4

DTZ3.9B
MA8051-H
MA8082-M
MA8120-M

μPD75116GF-G00-3BE
μPD75118GF-032-3B9
X24C16SI



LC7216M

RD5.1ES-B2
RD5.6ES-B2
RD6.2ES-L3
RD9.1ES-B2
RD12ES-B2
RD16ES-B3
1SS119

RC78M05FA
RC7808FA

CL-155Y/PG-CD

Note on Printed Wiring Board:

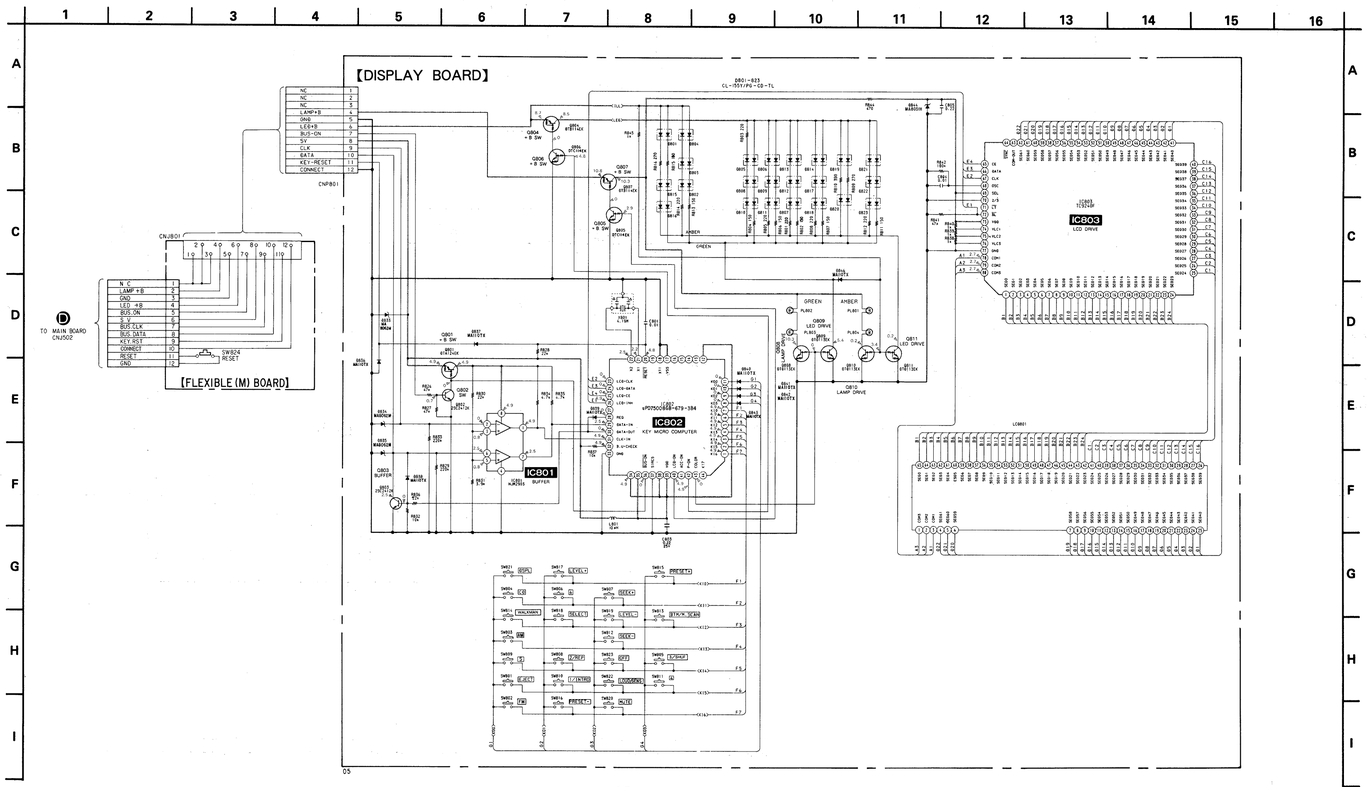
- ● : Through hole.
- ▪ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10 W or less unless otherwise specified.
- ⏚ : B ÷ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from battery and accessory terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY



Continued from page 3.

Ref. No.	Part No.	Description			Remark
C109	1-124-589-11	ELECT	47uF	20%	16V
C110	1-124-464-11	ELECT	0.22uF	20%	50V
C111	1-130-477-00	MYLAR	0.0033uF	5%	50V
C112	1-124-589-11	ELECT	47uF	20%	16V
C115	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C116	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C117	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C118	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C119	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C120	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C121	1-126-159-11	ELECT	0.47uF	20%	50V
C122	1-126-288-11	ELECT	4.7uF	20%	16V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C141	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C201	1-126-157-11	ELECT	10uF	20%	16V
C202	1-126-157-11	ELECT	10uF	20%	16V
C203	1-126-301-11	ELECT	1uF	20%	50V
C204	1-126-301-11	ELECT	1uF	20%	50V
C205	1-124-584-00	ELECT	100uF	20%	10V
C206	1-136-162-00	FILM	0.056uF	5%	50V
C207	1-136-162-00	FILM	0.056uF	5%	50V
C208	1-130-476-00	MYLAR	0.0027uF	5%	50V
C209	1-124-589-11	ELECT	47uF	20%	16V
C210	1-124-464-11	ELECT	0.22uF	20%	50V
C211	1-130-477-00	MYLAR	0.0033uF	5%	50V
C212	1-124-589-11	ELECT	47uF	20%	16V
C215	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C216	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C217	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C218	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C219	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C220	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C221	1-126-159-11	ELECT	0.47uF	20%	50V
C222	1-126-288-11	ELECT	4.7uF	20%	16V
C223	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C224	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C240	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C241	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C301	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C302	1-124-589-11	ELECT	47uF	20%	16V
C304	1-126-157-11	ELECT	10uF	20%	16V
C305	1-126-157-11	ELECT	10uF	20%	16V
C306	1-128-054-11	ELECT	22uF	20%	10V
C307	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C409	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C410	1-163-038-00	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C411	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C413	1-126-159-11	ELECT	0.47uF	20%	50V
C501	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C506	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C507	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C509	1-125-701-11	CAP, DOUBLE LAYER			0.047F
C510	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C511	1-126-157-11	ELECT	10uF	20%	16V
C512	1-126-157-11	ELECT	10uF	20%	16V
C513	1-126-157-11	ELECT	10uF	20%	16V
C514	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C515	1-126-157-11	ELECT	10uF	20%	16V
C518	1-124-360-00	ELECT	1000uF	20%	16V
C520	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C599	1-124-229-00	ELECT	33uF	20%	10V
C601	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C602	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C603	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C604	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C605	1-124-589-11	ELECT	47uF	20%	16V
C606	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C607	1-124-589-11	ELECT	47uF	20%	16V
C608	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C609	1-124-589-11	ELECT	47uF	20%	16V
C614	1-136-169-00	FILM	0.22uF	5%	50V
C615	1-130-479-00	MYLAR	0.0047uF	5%	50V
C617	1-124-464-11	ELECT	0.22uF	20%	50V
C618	1-126-301-11	ELECT	1uF	20%	50V
C619	1-126-301-11	ELECT	1uF	20%	50V
C620	1-136-153-00	FILM	0.01uF	5%	50V
C621	1-163-157-00	FILM	0.022uF	5%	50V
C622	1-130-474-00	MYLAR	0.0018uF	5%	50V
C623	1-126-288-11	ELECT	4.7uF	20%	16V
C624	1-130-477-00	MYLAR	0.0033uF	5%	50V
C625	1-128-054-11	ELECT	22uF	20%	10V
C626	1-126-288-11	ELECT	4.7uF	20%	16V
C642	1-163-157-00	FILM (E)	0.022uF	5%	50V
C642	1-136-171-00	FILM (US, Canadian)	0.033uF	5%	50V
C643	1-163-157-00	FILM (E)	0.022uF	5%	50V
C643	1-136-171-00	FILM (US, Canadian)	0.033uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C645	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C646	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C670	1-216-295-00	METAL CHIP	0 5%	1/10W	
C701	1-126-301-11	ELECT	1uF	20%	50V
C702	1-126-301-11	ELECT	1uF	20%	50V
C705	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C706	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-124-360-00	ELECT	1000uF	20%	16V
C731	1-126-925-11	ELECT	470uF	20%	10V
C732	1-124-234-00	ELECT	22uF	20%	16V
C751	1-126-301-11	ELECT	1uF	20%	50V
C752	1-126-301-11	ELECT	1uF	20%	50V
C755	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C901	1-126-154-11	ELECT	47uF	20%	6.3V
C902	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C903	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C904	1-128-057-11	ELECT	330uF	20%	6.3V
C910	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C911	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C912	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C913	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C914	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C915	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C950	1-124-589-11	ELECT	47uF	20%	16V
C953	1-126-916-11	ELECT	1000uF	20%	6.3V
C954	1-124-360-00	ELECT	1000uF	20%	16V
C957	1-164-232-11	CERAMIC CHIP	0.01uF		50V
		< JACK >			
CNJ502	1-691-801-11	SOCKET, CONNECTOR 12P			
CNJ503	1-691-280-21	CONNECTOR			
CNJ901	1-566-531-11	CONNECTOR, FPC (ZIF) 15P			
CNJ902	1-566-531-11	CONNECTOR, FPC (ZIF) 15P			
* CNJ903	1-569-630-11	SOCKET, CONNECTOR 9P			
		< CONNECTOR >			
* CNP1	1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P			
* CNP2	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
* CNP3	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
* CNP4	1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P			
* CNP701	1-695-869-11	PIN, CONNECTOR (PC BOARD) 8P			
		< DIODE >			
D101	8-719-976-88	DIODE DTZ3.9B			
D102	8-719-109-75	DIODE RD4.3ES-B2			
D202	8-719-109-75	DIODE RD4.3ES-B2			
D350	8-719-423-32	DIODE MA8120-M			
D401	8-719-422-64	DIODE MA8062-M			
D402	8-719-422-64	DIODE MA8062-M			
D403	8-719-422-64	DIODE MA8062-M			
D404	8-719-422-64	DIODE MA8062-M			
D405	8-719-422-64	DIODE MA8062-M			
D406	8-719-422-64	DIODE MA8062-M			
D412	8-719-422-64	DIODE MA8062-M			
D413	8-719-422-64	DIODE MA8062-M			
D501	8-719-110-31	DIODE RD12ES-B2			
D502	8-719-110-13	DIODE RD9.1ES-B2			
D503	8-719-105-91	DIODE RD5.6M-B2			
D504	8-719-105-91	DIODE RD5.6M-B2			
D506	8-719-400-18	DIODE MA152WK			
D507	8-719-400-18	DIODE MA152WK			
D508	8-719-400-18	DIODE MA152WK			
D509	8-719-104-34	DIODE 1S2836			
D510	8-719-120-78	DIODE RD6.2ES-L3			
D511	8-719-110-13	DIODE RD9.1ES-B2			
D512	8-719-109-89	DIODE RD5.6ES-B2			
D513	8-719-110-13	DIODE RD9.1ES-B2			
D514	8-719-945-59	DIODE DSA3A4			
D515	8-719-120-78	DIODE RD6.2ES-L3			
D516	8-719-110-46	DIODE RD16ES-B3			
D517	8-719-120-78	DIODE RD6.2ES-L3			
D518	8-719-400-18	DIODE MA152WK			
D601	8-719-911-19	DIODE 1SS119			
D603	8-719-911-19	DIODE 1SS119			
D604	8-719-911-19	DIODE 1SS119			
D606	8-719-800-76	DIODE 1SS226			
D731	8-719-911-19	DIODE 1SS119			
D901	8-719-109-85	DIODE RD5.1ES-B2			
D950	8-719-400-18	DIODE MA152WK			
D951	8-719-911-19	DIODE 1SS119			
D952	8-719-110-13	DIODE RD9.1ES-B2			
		< FRONT END >			
FE601	1-693-066-21	TUNER UNIT			
		< IC >			
HIC601	1-808-515-11	IC NMX3S900 (E)			
HIC601	1-808-516-11	IC NMX3S920 (US, Canadian)			
IC101	8-759-909-71	IC BA4558F			
IC102	8-759-909-71	IC BA4558F			
IC103	8-759-909-71	IC BA4558F			
IC201	8-759-909-71	IC BA4558F			
IC202	8-759-909-71	IC BA4558F			
IC203	8-759-909-71	IC BA4558F			
IC301	8-759-820-15	IC LC7537AN			
IC302	8-759-516-41	IC CD4052BCM			

Ref. No.	Part No.	Description	Remark
IC303	8-759-909-71	IC BA4558F	
IC304	8-759-048-67	IC BA3121F	
IC501	8-759-981-65	IC LM2903M	
IC502	8-759-940-45	IC S-8054HN-CB	
IC504	8-759-071-92	IC uPD75518GF-032-3B9	
IC601	8-759-089-50	IC uPD75116GF-G00-3BE	
IC602	8-759-513-42	IC X24C04SI	
IC603	8-759-823-81	IC LC7216M	
IC701	8-759-062-62	IC TDA1554Q	
IC901	8-759-093-98	IC CXD8451M	
IC902	8-759-909-71	IC BA4558F	
IC950	8-759-982-31	IC RC78M05FA	
IC951	8-759-982-07	IC RC7808FA	
IC952	8-759-802-76	IC LB1645N	
		< JUMPER RESISTOR >	
JR601	1-216-295-00	METAL CHIP 0 5% 1/10W (US, Canadian)	
JR602	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR603	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR604	1-216-295-00	METAL CHIP 0 5% 1/10W (US, Canadian)	
JR605	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR606	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR607	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR608	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR609	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR620	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR621	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR622	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L501	1-410-973-11	INDUCTOR 22uH	
L601	1-410-973-11	INDUCTOR 22uH	
L602	1-410-973-11	INDUCTOR 22uH	
L901	1-414-035-31	INDUCTOR 180uH	
L902	1-410-396-41	FERRITE BEAD INDUCTOR	
		< TRANSISTOR >	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-901-05	TRANSISTOR DTA124EK	
Q302	8-729-901-00	TRANSISTOR DTC124EK	
Q501	8-729-901-05	TRANSISTOR DTA124EK	
Q502	8-729-901-00	TRANSISTOR DTC124EK	
Q503	8-729-921-48	TRANSISTOR 2SD1760F5-Q	
Q504	8-729-921-48	TRANSISTOR 2SD1760F5-Q	

Ref. No.	Part No.	Description	Remark
Q505	8-729-901-00	TRANSISTOR DTC124EK	
Q507	8-729-422-28	TRANSISTOR 2SD601A-R	
Q508	8-729-422-28	TRANSISTOR 2SD601A-R	
Q509	8-729-422-28	TRANSISTOR 2SD601A-R	
Q510	8-729-216-22	TRANSISTOR 2SA1162-G	
Q511	8-729-216-22	TRANSISTOR 2SA1162-G	
Q514	8-729-422-28	TRANSISTOR 2SD601A-R	
Q515	8-729-422-28	TRANSISTOR 2SD601A-R	
Q516	8-729-420-81	TRANSISTOR 2SD874A-R	
Q517	8-729-105-29	TRANSISTOR 2SA1385	
Q518	8-729-901-00	TRANSISTOR DTC124EK	
Q519	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q520	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q521	8-729-105-29	TRANSISTOR 2SA1385	
Q522	8-729-901-00	TRANSISTOR DTC124EK	
Q523	8-729-921-48	TRANSISTOR 2SD1760F5-Q	
Q524	8-729-422-28	TRANSISTOR 2SD601A-R	
Q525	8-729-422-28	TRANSISTOR 2SD601A-R	
Q526	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-422-28	TRANSISTOR 2SD601A-R	
Q530	8-729-422-28	TRANSISTOR 2SD601A-R	
Q531	8-729-422-28	TRANSISTOR 2SD601A-R	
Q598	8-729-901-00	TRANSISTOR DTC124EK	
Q602	8-729-216-22	TRANSISTOR 2SA1162-G	
Q603	8-729-106-60	TRANSISTOR 2SB1115A	
Q605	8-729-809-71	TRANSISTOR 2SK536	
Q608	8-729-422-28	TRANSISTOR 2SD601A-R	
Q609	8-729-422-28	TRANSISTOR 2SD601A-R	
Q611	8-729-901-05	TRANSISTOR DTA124EK	
Q620	8-729-901-00	TRANSISTOR DTC124EK	
Q701	8-729-901-00	TRANSISTOR DTC124EK	
Q702	8-729-901-00	TRANSISTOR DTC124EK	
Q901	8-729-901-00	TRANSISTOR DTC124EK	
Q950	8-729-105-29	TRANSISTOR 2SA1385	
Q951	8-729-920-21	TRANSISTOR DTC314TKH04	
Q952	8-729-106-60	TRANSISTOR 2SB1115A	
Q953	8-729-105-29	TRANSISTOR 2SA1385	
Q954	8-729-920-21	TRANSISTOR DTC314TKH04	
Q956	8-729-900-98	TRANSISTOR DTC143TK	
		< RESISTOR >	
R102	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R104	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R105	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R106	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R107	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R108	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R109	1-216-083-00	METAL CHIP 27K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R111	1-216-121-00	METAL CHIP	1M	5%	1/10W
R112	1-216-041-00	METAL CHIP	470	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R115	1-216-121-00	METAL CHIP	1M	5%	1/10W
R116	1-216-121-00	METAL CHIP	1M	5%	1/10W
R119	1-216-085-00	METAL CHIP	33K	5%	1/10W
R120	1-216-085-00	METAL CHIP	33K	5%	1/10W
R121	1-216-093-00	METAL CHIP	68K	5%	1/10W
R122	1-216-093-00	METAL CHIP	68K	5%	1/10W
R123	1-216-081-00	METAL CHIP	22K	5%	1/10W
R124	1-216-081-00	METAL CHIP	22K	5%	1/10W
R125	1-216-081-00	METAL CHIP	22K	5%	1/10W
R126	1-216-081-00	METAL CHIP	22K	5%	1/10W
R127	1-216-080-00	METAL CHIP (US, Canadian)	20K	5%	1/10W
R127	1-216-085-00	METAL CHIP	33K	5%	1/10W (E)
R128	1-216-073-00	METAL CHIP	10K	5%	1/10W
R129	1-216-089-00	METAL CHIP	47K	5%	1/10W
R133	1-216-089-00	METAL CHIP	47K	5%	1/10W
R140	1-216-025-00	METAL CHIP	100	5%	1/10W (E)
R140	1-216-049-00	METAL CHIP (US, Canadian)	1K	5%	1/10W
R202	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W
R206	1-216-083-00	METAL CHIP	27K	5%	1/10W
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W
R208	1-216-121-00	METAL CHIP	1M	5%	1/10W
R209	1-216-083-00	METAL CHIP	27K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-121-00	METAL CHIP	1M	5%	1/10W
R212	1-216-041-00	METAL CHIP	470	5%	1/10W
R213	1-216-077-00	METAL CHIP	15K	5%	1/10W
R214	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R215	1-216-121-00	METAL CHIP	1M	5%	1/10W
R216	1-216-121-00	METAL CHIP	1M	5%	1/10W
R219	1-216-085-00	METAL CHIP	33K	5%	1/10W
R220	1-216-085-00	METAL CHIP	33K	5%	1/10W
R221	1-216-093-00	METAL CHIP	68K	5%	1/10W
R222	1-216-093-00	METAL CHIP	68K	5%	1/10W
R223	1-216-081-00	METAL CHIP	22K	5%	1/10W
R224	1-216-081-00	METAL CHIP	22K	5%	1/10W
R225	1-216-081-00	METAL CHIP	22K	5%	1/10W
R226	1-216-081-00	METAL CHIP	22K	5%	1/10W
R227	1-216-080-00	METAL CHIP (US, Canadian)	20K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R227	1-216-085-00	METAL CHIP	33K	5%	1/10W (E)
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R229	1-216-089-00	METAL CHIP	47K	5%	1/10W
R233	1-216-089-00	METAL CHIP	47K	5%	1/10W
R240	1-216-025-00	METAL CHIP	100	5%	1/10W (E)
R240	1-216-049-00	METAL CHIP (US, Canadian)	1K	5%	1/10W
R301	1-216-097-00	METAL CHIP	100K	5%	1/10W
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W
R303	1-216-089-00	METAL CHIP	47K	5%	1/10W
R304	1-216-049-00	METAL CHIP	1K	5%	1/10W
R501	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R502	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R504	1-216-025-00	METAL CHIP	100	5%	1/10W
R511	1-216-049-00	METAL CHIP	1K	5%	1/10W
R512	1-216-089-00	METAL CHIP	47K	5%	1/10W
R513	1-216-089-00	METAL CHIP	47K	5%	1/10W
R514	1-216-089-00	METAL CHIP	47K	5%	1/10W
R515	1-216-073-00	METAL CHIP	10K	5%	1/10W
R516	1-216-081-00	METAL CHIP	22K	5%	1/10W
R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R518	1-216-081-00	METAL CHIP	22K	5%	1/10W
R519	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R520	1-216-081-00	METAL CHIP	22K	5%	1/10W
R521	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R522	1-216-089-00	METAL CHIP	47K	5%	1/10W
R523	1-216-089-00	METAL CHIP	47K	5%	1/10W
R524	1-216-097-00	METAL CHIP	100K	5%	1/10W
R525	1-216-097-00	METAL CHIP	100K	5%	1/10W
R526	1-216-049-00	METAL CHIP	1K	5%	1/10W
R527	1-216-089-00	METAL CHIP	47K	5%	1/10W
R528	1-216-089-00	METAL CHIP	47K	5%	1/10W
R530	1-216-097-00	METAL CHIP	100K	5%	1/10W
R531	1-216-089-00	METAL CHIP	47K	5%	1/10W
R532	1-216-089-00	METAL CHIP	47K	5%	1/10W
R533	1-216-097-00	METAL CHIP	100K	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R536	1-216-073-00	METAL CHIP	10K	5%	1/10W
R537	1-216-081-00	METAL CHIP	22K	5%	1/10W
R538	1-216-081-00	METAL CHIP	22K	5%	1/10W
R539	1-216-097-00	METAL CHIP	100K	5%	1/10W
R541	1-216-089-00	METAL CHIP	47K	5%	1/10W
R542	1-216-073-00	METAL CHIP	10K	5%	1/10W
R543	1-216-073-00	METAL CHIP	10K	5%	1/10W
R544	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R545	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R546	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W

Ref. No.	Part No.	Description			Remark
R547	1-216-073-00	METAL CHIP	10K	5%	1/10W
R548	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R549	1-216-073-00	METAL CHIP	10K	5%	1/10W
R550	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R551	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R552	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R553	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R554	1-216-097-00	METAL CHIP	100K	5%	1/10W
R555	1-216-097-00	METAL CHIP	100K	5%	1/10W
R557	1-216-105-00	METAL CHIP	220K	5%	1/10W
R558	1-216-089-00	METAL CHIP	47K	5%	1/10W
R559	1-216-073-00	METAL CHIP	10K	5%	1/10W
R560	1-216-089-00	METAL CHIP	47K	5%	1/10W
R561	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R562	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R563	1-216-077-00	METAL CHIP	15K	5%	1/10W
R567	1-216-097-00	METAL CHIP	100K	5%	1/10W
R568	1-216-097-00	METAL CHIP	100K	5%	1/10W
R570	1-216-097-00	METAL CHIP	100K	5%	1/10W
R571	1-216-097-00	METAL CHIP	100K	5%	1/10W
R572	1-216-097-00	METAL CHIP	100K	5%	1/10W
R573	1-216-097-00	METAL CHIP	100K	5%	1/10W
R574	1-216-097-00	METAL CHIP	100K	5%	1/10W
R575	1-216-097-00	METAL CHIP	100K	5%	1/10W
R595	1-216-097-00	METAL CHIP	100K	5%	1/10W
R596	1-216-097-00	METAL CHIP	100K	5%	1/10W
R601	1-216-089-00	METAL CHIP	47K	5%	1/10W
R602	1-216-097-00	METAL CHIP	100K	5%	1/10W
R603	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R604	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R605	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R606	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R607	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R608	1-216-073-00	METAL CHIP	10K	5%	1/10W
R610	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R611	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R613	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R616	1-216-073-00	METAL CHIP	10K	5%	1/10W
R617	1-216-073-00	METAL CHIP	10K	5%	1/10W
R618	1-216-073-00	METAL CHIP	10K	5%	1/10W
R619	1-216-049-00	METAL CHIP	1K	5%	1/10W
R620	1-216-049-00	METAL CHIP	1K	5%	1/10W
R623	1-216-049-00	METAL CHIP	1K	5%	1/10W
R624	1-216-041-00	METAL CHIP	470	5%	1/10W
R625	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R626	1-216-061-00	METAL CHIP	3.3K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R627	1-216-073-00	METAL CHIP	10K	5%	1/10W
R628	1-216-073-00	METAL CHIP	10K	5%	1/10W
R629	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R630	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R631	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R632	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R633	1-216-073-00	METAL CHIP	10K	5%	1/10W
R634	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R635	1-216-080-00	METAL CHIP	20K	5%	1/10W
R636	1-216-095-00	METAL CHIP	82K	5%	1/10W
R637	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R638	1-216-085-00	METAL CHIP	33K	5%	1/10W
R639	1-216-085-00	METAL CHIP	33K	5%	1/10W
R640	1-216-079-00	METAL CHIP	18K	5%	1/10W
R645	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R646	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R647	1-216-089-00	METAL CHIP	47K	5%	1/10W
R670	1-216-295-00	METAL CHIP	0	5%	1/10W
R671	1-216-295-00	METAL CHIP	0	5%	1/10W
R672	1-216-295-00	METAL CHIP	0	5%	1/10W
R699	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R731	1-216-089-00	METAL CHIP	47K	5%	1/10W
R732	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R733	1-216-097-00	METAL CHIP	100K	5%	1/10W
R901	1-216-025-00	METAL CHIP	100	5%	1/10W
R902	1-216-037-00	METAL CHIP	330	5%	1/10W
R904	1-216-121-00	METAL CHIP	1M	5%	1/10W
R950	1-216-073-00	METAL CHIP	10K	5%	1/10W
R951	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R952	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R953	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R954	1-216-073-00	METAL CHIP	10K	5%	1/10W
R955	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R956	1-216-045-00	METAL CHIP	680	5%	1/10W
R957	1-216-073-00	METAL CHIP	10K	5%	1/10W
R961	1-216-097-00	METAL CHIP	100K	5%	1/10W
R962	1-216-097-00	METAL CHIP	100K	5%	1/10W
R963	1-216-097-00	METAL CHIP	100K	5%	1/10W
R964	1-216-097-00	METAL CHIP	100K	5%	1/10W
R965	1-216-027-00	METAL CHIP	120	5%	1/10W
R966	1-216-001-00	METAL CHIP	10	5%	1/10W

< VARIABLE RESISTOR >

RV602	1-238-713-11	RES, ADJ, METAL GLAZE	10K		

MAIN

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW501	1-571-426-11	SWITCH, SLIDE (POWER, SELECT)	
SW602	1-571-426-11	SWITCH, SLIDE (9K/10K) (E)	
SW701	1-572-186-21	SWITCH, SLIDE (2SP/4SP)	
		< THERMISTOR >	
TH501	1-809-842-21	THERMISTOR PTH8L07AR2R0M1B510	
TH502	1-809-842-21	THERMISTOR PTH8L07AR2R0M1B510	
		< VIBRATOR >	
X501	1-567-776-21	VIBRATOR, CERAMIC (6.0MHz)	
X502	1-579-709-11	VIBRATOR, CRYSTAL (32.768KHz)	
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)	
X602	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)	
X603	1-567-250-11	OSCILLATOR, CERAMIC (18.95KHz)	
X901	1-567-820-11	VIBRATOR, CRYSTAL (16.9344MHz)	

- **Speaker cord change (6 slots to 8 slots)**

Page	Former Type			New Type	
	Ref No.	Part No.	Description	Part No.	Description
55	13	1-690-722-11	CORD (WITH CONNECTOR) (SP) (6P)	1-690-722-21	CORD (WITH CONNECTOR) (SP) (8P)
	Ref No.	Part No.	Description	Part No.	Description
70		1-690-722-11	CORD (WITH CONNECTOR) (SP) (6P)	1-690-722-21	CORD (WITH CONNECTOR) (SP) (8P)

English
93E0535-1
Printed in Japan
© 1993. 5

9-956-912-81

Sony Corporation
Mobile Electronics Group

Published by Audio Sector Quality Assurance Dept.

CDX-5180

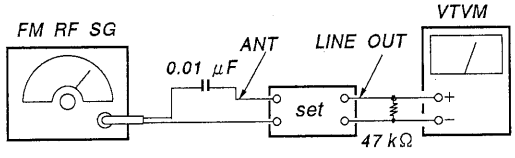
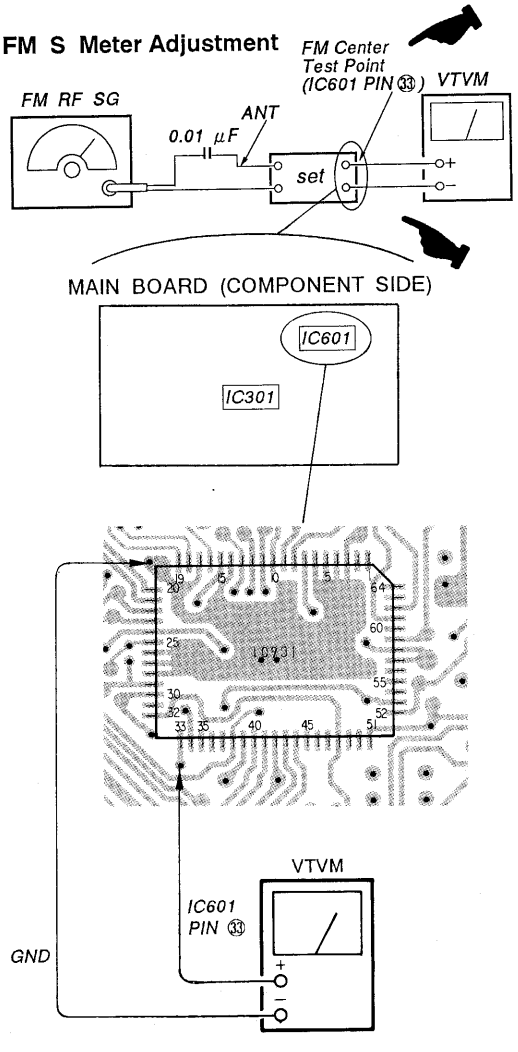
SONY
SERVICE MANUAL

US Model
Canadian Model
E Model

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

PAGE	INCORRECT	CORRECT
14	**FM S Meter Adjustment**  Carrier frequency: 98 MHz Output level: 1 mV (More than 35 dB) Model: FM Modulation: Pilot signal 19 kHz, 7.5 kHz deviation (10%) **Procedure:** 1. Tune the set to 98 MHz. 2. Adjust RV603 so that reading on VTVM is 2.0 ± 0.1 V.	**FM S Meter Adjustment**  Carrier frequency: 98 MHz Output level: 35dB (56.2 μV) Model: FM Modulation: Pilot signal 19 kHz, 7.5 kHz deviation (10%) **Procedure:** 1. Tune the set to 98 MHz. 2. Adjust RV603 so that reading on VTVM is 2.0 ± 0.1 V.

: indicates added portion.

PAGE	INCORRECT	CORRECT
15	**PLL free-run frequency adjustment** 1. Remove the soldering bridge (EFM) from the RF board. 2. Connect the frequency counter to test point (PLCK). 3. Turn the power on and adjust RV5 so that frequency counter reading satisfies the specification. **Adjustable limits:** 4.3118 to 4.3318MHz	**PLL free-run frequency adjustment** 1. Remove the soldering bridge (EFM) from the RF board. 2. Remove the flexible boad from CNJ902 on the Main Board. 3. Connect the frequency counter to test point (PLCK). 4. Connect a power supply and reset the set. 5. Adjust RV5 so that frequency counter reading satisfies the specification. **Adjustable limits:** 4.3118 to 4.3318MHz

9-956-912-91

Sony Corporation
Mobile Electronics Group

English
92J0535-1
Printed in Japan
© 1992. 10

Published by Customer Relations and Service Group

CDX-5180

SONY
SERVICE MANUAL

US Model
Canadian Model
E Model

CORRECTION-2

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
70		X-3364-646-1	CASE ASSY	X-3365-034-1	CASE ASSY
	501	X-3364-646-1	CASE ASSY	3-323-219-01	FRAME, FITTING
	503	3-323-219-01	FRAME, FITTING	3-376-301-01	COLLAR
	505	3-323-210-01	BOLT (4-5), STUD	3-323-209-01	BOLT (4-5), STUD

9-956-912-92

Sony Corporation
Mobile Electronics Group

English
92K0535-1
Printed in Japan
© 1992.11
Published by Audio Corporate Planning Group

CDX-5180

SONY
SERVICE MANUAL

US Model
Canadian Model
E Model

CORRECTION-3

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
64	FE601	1-193-066-21	TUNER UNIT (FM/AM)	1-465-140-11	TUNER UNIT (FM/AM)
70	504	X-3364-679-1	SCREW ASSY (B)	3-329-814-01	SCREW (M4×6), SPECIAL PAN (+)

9-956-912-93

Sony Corporation
Mobile Electronics Group

English
92L0535-1
Printed in Japan
© 1992.12
Published by Audio Corporate Planning Group

CDX-5180

SONY
SERVICE MANUAL
REVICED

US Model
Canadian Model
E Model

CORRECTION-3R

Correct your service manual as shown below.
Discard correction-3 (No.9-956-912-93) priviously issued.

☛ : **indicates corrected portion.**

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
64	FE601	1-193-066-21	TUNER UNIT (FM/AM)	1-693-066-21 ☛	TUNER UNIT (FM/AM)
	HIC601	1-808-515-11	IC NMX3S920	1-808-515-11 ☛	IC NMX3S900 (E)
				1-808-516-11 ☛	IC NMX3S920 (US, CND)
70	504	X-3364-679-1	SCREW ASSY (B)	3-329-814-01 ☛	SCREW (M4×6), SPECIAL PAN (+)

9-956-912-94

Sony Corporation
Mobile Electronics Group

English
93E0534-1
Printed in Japan
© 1993.5
Published by Audio Sector Quality Assurance Dept.